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An Address.¹

PREVENTIVE MEDICINE: A POINT OF VIEW.

By G. C. WILLCOCKS,

President of the New South Wales Branch of the British Medical Association.

IN my address tonight I wish to speak mainly about preventive medicine. This will include a number of matters which have been under consideration by the Branch Council and by the members of the medical profession in the last twelve months.

The General Practitioner and Preventive Medicine.

There has been a good deal of talk lately about preventive medicine. We have been told that the general practitioner does not take enough part in preventive medicine. This statement has been repeated by various government officials and private individuals; indeed it seems to be one of the few implied criticisms of the present system of medical practice, as distinct from matters of public policy in regard to health, such as proper housing, adequate wages, adequate food, adequate hospital accommodation and so on. This statement about preventive medicine has become a sort of catch-word. I wonder if those who use the phrase know what they mean by it. What does it mean to members of this audience? Apart from this statement that the medical practitioner does not take enough part in preventive medicine, there appears to be no other reason given in the various plans—proposals for government control of medicine—to indicate in what

way nationalization of medical practice would benefit the people's health. Indeed, why should such a change benefit the people's health? Under government control the same doctors would be treating the same patients, by the same methods, in the same environment. The only change would be that the Government would pay the doctors and the patients be attended free. Why should this benefit the people's health? Many of us are strongly inclined to the view that it would be more likely to have the opposite effect. However, no reasons have been advanced to show why nationalization of medical practice would improve the health of the nation. I think that I may say that 90% of our practitioners can see no reason why it should do so. It seems that the government representatives have decided that the people must all have government doctors; but no reasons have been given why this change should benefit the public health, and there are good grounds for this omission, because there are no reasons why it should.

It is true that among the suggestions put forward by governmental bodies, certain suggestions have been made as to how nationalization of medicine might benefit the medical practitioners. For instance, shorter hours, longer holidays, "time off" for post-graduate work, and group practice have been suggested. However, your Council has never considered that aspect of the proposed revolutionary change to nationalized medicine. Your Council has considered all the various schemes suggested for changing the present system of medical practice solely, in relation to any benefit the public health might derive by such changes. Doctors would, of course, all like shorter hours, longer holidays and so on; but I think that in normal times most doctors can, and do, have a reasonable sort of life, and find time for holidays and post-graduate work; if they changed over to nationalized medicine, they might find that the suggested benefits were less than they anticipated.

With regard to the doctor's hours of work, in these strenuous times practitioners in some districts cut out

¹ Read at the annual meeting of the New South Wales Branch of the British Medical Association on March 30, 1944.

unnecessary visits—that is, visits which the patients like, but which can be omitted without harm—and try to concentrate their hospital patients, so as to spend half an hour at one hospital rather than two hours visiting six different hospitals. Others have cut out the evening hours in the surgery, except for urgent cases. There is no reason why such reasonable concentration of the doctor's work should not continue in the future, and it is up to the doctors in each district to come to some agreement on such matters now, and to stand by their agreement. In these ways doctors could make life more bearable for themselves.

Group Practice.

I feel that I should mention group practice, as it has been suggested as a means of softening the hard lot of the general practitioner. It would seem an ideal method for the doctor. The only hindrance to it in the past has been human nature, and if we can only change human nature, group practice, and the new order generally, will be much simplified. Incidentally, the Parliamentary Joint Committee on Social Security has taken up our own statement that group practice is desirable, and has suggested the formation of health centres in certain districts, at which the doctors practising in the district would serve part time, under government control and pay. Your Council and the delegates of the local associations, and later the Federal Council, opposed the scheme, firstly, because the profession is entirely opposed to any radical change in the method of medical practice while so many doctors are absent on national duties, and secondly, because the scheme appeared unsatisfactory from the patient's viewpoint. Under this scheme the patient could consult a doctor at the health centre in the morning for no fee, but if he became ill later in the day and had to call in the doctor he would have to pay a fee, or have a different "free" doctor; for these and for other reasons the scheme was opposed.

Free Medicine.

Another scheme which, I am told, was sprung on some members of the profession, while they were at Canberra recently, was the free medicine scheme. Under this scheme certain medicines would be provided free to all patients. Your Council and the Federal Council have refused to bind the medical profession to this scheme. Your Council was not consulted about the scheme at all, and did not know that any such scheme was under consideration, until it had been worked out and practically agreed on between the Government and the pharmacists. Apparently the Government representatives were under the impression that medical practitioners were not interested in what they prescribed for their patients. I cannot imagine a more glaring example than this of what may be expected under government control. The doctors who actually treat the patients were not consulted at all as to what should or should not be prescribed for their patients until the scheme was completed. Then, at the last moment, and without any previous knowledge of the matter, they were asked to agree to it, and almost made to appear obstructionists in delaying while they considered it. Certain members of your Council who were (without previous notice) asked to discuss this fully prepared scheme with government representatives at Canberra made the following statement, which was later supported by your Council, by the delegates of the local associations, and the Federal Council:

We, the representatives of the medical profession, recognize fully that the restoration to health and the alleviation of suffering should be our paramount considerations. Holding this opinion, we consider that it is essential that in the acceptance of responsibility for the treatment of the sick, the medical profession must be entirely untrammelled in regard to the therapeutic measures to be adopted. For this reason we feel that the welfare of the sick would be seriously jeopardized by the adoption of any scheme which would limit the freedom of a doctor in prescribing for each of his patients exactly what medicine he regards as most suitable to restore him to health.

Later the Federal Council advised the Commonwealth Minister for Health that its members did not think the pharmacy benefits scheme would materially improve the health of the community, and that the money would be much better spent on hospital construction and equipment, the care of the tuberculous, maternal and child welfare, and the diagnosis and treatment of cancer. It may not be generally known that the Commonwealth Minister for Health is reported to have stated in the House that the Government did not expect this free medicine scheme to benefit the health of the people.

Preventive Medicine.

I fear I have wandered far afield before coming to the main subject of my address; but I thought our members would appreciate these statements about recent activities of the Council. My principal interest tonight is to discuss preventive medicine, with which some say the medical practitioner is not sufficiently concerned. Before discussing what preventive medicine is, I should like to say that I entirely disagree with this statement about the general practitioner's part in preventive medicine. In actual fact, the general practitioner is responsible for carrying out about 90% of the preventive medicine of our time. What part does he not play?

What is preventive medicine? Some think of it as the preventive medicine of 100 years ago. Public health officers think of it as the control of infectious disease and drains; necessary as these measures are, a little thought will show that we have much more than infectious diseases to think of. Preventive medicine is a much wider conception in these days.

Infectious Disease.

Certainly infectious diseases should be controlled; we have a system for trying to control them which is unsatisfactory so far as controlling infectious diseases is concerned; but this unsatisfactory state of affairs is not due to the general practitioner, who, in fact, does practically all the work in connexion with the vast bulk of infectious diseases.

Research.

What is required now in our wider conception of preventive medicine is more research into the mode of spread of infectious diseases. New light is being thrown on these modes of spread every year. A recent example has been the work done in England on the distribution of streptococci in wounds, spread largely by dust and droplets. Apparently the prevention of this form of infection can be effected by extreme care in supervision, and this means having more staff to carry out the work. This is an example of preventive medicine resulting from research.

Hospitals.

While speaking of infections, let me say that cross-infection in children's hospitals and in hospitals for infectious diseases could be controlled by having sufficient space for the patients and sufficient nurses to carry out the necessary procedures.

The above-mentioned researches have revealed how easily infection is spread in hospitals. Far too frequently the nurses in these hospitals have not the time to take the meticulous care necessary for adequate preventive measures in the modern sense. Here, then, is another form of preventive medicine—adequate hospital space for all patients, and adequate nursing staff to carry out the meticulous and careful procedures necessary for prevention of spread of infections. I suppose no hospital in Australia has ever had all the nursing staff the matron needs. This form of preventive medicine costs money, and the governments might well apply some of their money in these directions instead of wasting it on futile schemes. By so doing they could prevent some of the thousands of cross-infections which occur every year in hospitals in Australia through lack of space and lack of sufficient staff. This would be preventive medicine resulting from adequate hospital accommodation and staff.

While on this subject I wish to point out the desperate situation of the people in Australia in recent years and at the present time owing to lack of hospital accommodation. Public hospitals are always over-full in New South Wales and private hospitals have closed their doors in numbers, partly owing to the competition of private wards attached to public hospitals. In New South Wales hospitals for the chronically ill are hopelessly inadequate. By providing adequate hospital accommodation for all types of patients, preferably with public, private and intermediate wards attached to existing hospitals (which have the necessary X-ray and laboratory equipment), the Government could take a very important step in preventive medicine. For, surely, this is a form of preventive medicine—to prevent people from dying, or from suffering unnecessarily long illness, through inadequate facilities for treatment.

X-Ray and Laboratory Equipment.

Speaking of hospital equipment brings me to a very important matter. I wish to emphasize a recommendation made by the Federal Council to the Federal Government indicating the imperative need for X-ray and laboratory facilities in all districts of the State. These are among the most important necessities for improving medical practice and helping the patients. By these means diagnosis can be greatly facilitated, and the treatment and prevention of disease, in which the practitioner takes first place, can be much assisted. The Parliamentary Joint Committee on Social Security has recently inquired into these matters, and has, I believe, strongly advocated expansion of hospital accommodation and of X-ray and laboratory equipment. The Government has replied by introducing a free medicine bill.

Industry.

Another form of preventive medicine is in connexion with industry. Research is needed, and it is necessary to have the knowledge applied properly. This can be done only by educating the Government and the people. You may recall that fatigue in industry was fully investigated in 1917-1918 in the United Kingdom, but the knowledge was not applied either in the United Kingdom or here at the outbreak of this war. It would be of great value if officers of the calibre of Dr. C. Badham could be obtained for this type of work. How valuable they could be if the Government realized how to go about the investigation and the prevention of disease!

Preventive Medicine and the Community.

This brings me back again to preventive medicine. I believe that preventive medicine includes any activity which helps to save or prolong life—for instance, the care of the health of men, women and children, at all times and at all ages. We take special care of pregnant women and of infants. This is a most important phase of preventive medicine. Who attends to it? Mainly the medical practitioner; but we must take a wider view of preventive medicine. We should aim to prevent mothers who are not pregnant from falling ill and dying, and the same applies to children and fathers. Obviously, then, we must consider the ailments from which all these people suffer and try to prevent them. Until now infectious diseases have had much attention. In the realm of prevention, venereal diseases, tuberculosis, diphtheria, typhoid fever, smallpox and so on have been under review. We have been trying to prevent them, and we must improve on the present methods by research and by the provision of adequate facilities, such as properly equipped hospitals, which we have not got.

Anxiety States.

But consider all the other conditions which disable people. Take anxiety states, from which about five out of ten of our patients seem to suffer in some degree. They are disabling, and they are preventible to a great extent. Such conditions might well be investigated and the causes and the means of prevention considered by our governments.

Apart from preventing neurotic persons from marrying, we can do something towards preventing these states by allowing people to have adequate rest and adequate holidays. How is the housewife to do this—how is she to obtain this rest? Obviously, by having someone to help her for some part of her time in her daily routine when necessary and by seeing that she has necessary holidays. This might be, and often is, arranged privately. However it is done, the doing of it is a form of preventive medicine. The same applies to holidays for men, and especially for brain workers. I do not say that holidays are not necessary for manual workers; but experience teaches us that they are doubly necessary for brain workers (those who deal with books, figures and the like). Now, who is the man who does the work of trying to prevent, by his advice and treatment, the development of these anxiety states? The general practitioner. Will he do this work better if he is under government control. I doubt it. Much more can be done, however, by education of the governments and the people as to the needs of the individual.

Peptic Ulcer.

Another potent cause of disablement at the present time, especially in young and middle-aged people, is peptic ulcer (gastric and duodenal ulcer). This condition is now thought to be due to nervous states in certain types of subjects. In those prone to ulcer, excessive anxiety or worry may bring on the symptoms. This is not difficult to explain on physiological grounds; but the point is, how is it to be prevented? Obviously, by early diagnosis and treatment, and by avoidance of the causative factors in the future. Who will make the early diagnosis, carry out the treatment and give advice and directions as to avoidance of the cause? The general practitioner.

Pensions.

Another factor in disablement which might be prevented is the anxiety state which is induced in subjects of workers' compensation cases and in war pensioners. This is particularly obvious during litigation and during the hearing of claims for increases in war pensions; but it occurs at other times, and to a notable extent. There is no doubt that in some individuals with very slight disability, the hope of obtaining compensation or a pension is a definite factor in inducing nervous symptoms—neurosis or anxiety state, call them what you will. This is not good for the morale of the people as a whole. The Federal authorities have had their attention drawn to this cause of disablement; there is a possibility here for the development of preventive medicine, which would be fruitful, if the advice of those competent to advise was sought. At present, while the causes persist, the general practitioner is the man who has to endeavour to prevent these states.

Rehabilitation.

In rehabilitation, as well as in disabilities following injuries, an excellent avenue of preventive medicine would be the development of rehabilitation centres for civilians on the lines of those laid down for the armed forces. If adequate control and staff were provided, a great deal of the present prolonged disablement following injuries, whether compensable or not, would be avoided. Such centres could easily be developed in connexion with existing hospitals. Your Council submitted a report on these lines to the Federal Council last year, but so far the matter has not been proceeded with.

Fibrositis.

Fibrositis is another cause of serious disability in the community, which might be prevented. Is it an infection like Bornholm disease or is it gouty? Is it seasonal? Can it be prevented, and can it be cured? There is an opening here for preventive medicine in which the general practitioner could play an important part, if only we had adequate centres for research into such problems. Properly staffed and equipped out-patient departments would be good centres for such research. I should like to mention

out-patient departments at the public hospitals. In many hospitals these are so cramped, so ill-equipped and so understaffed that invaluable material for research in the development of preventive medicine is constantly wasted. The medical officers have just had to carry on as best they could, because money has not been available to build suitable departments. At the present time and in the past we have never had reasonable facilities for research at all. Our pathological laboratories are so under-financed and so overburdened with routine work that there is little time to branch out in any new direction. At Sydney Hospital a few years ago we were doing quite a useful piece of research into the types of pneumococci in respiratory infection, which was of the greatest importance; but that had to close down owing to lack of staff. If the Government wants preventive medicine to be developed, the Government will have to provide money to build hospitals, to supply nurses, to endow research, and to provide rehabilitation centres.

Education of the Public.

Another form of preventive medicine which we should strongly advocate is education of the public. As you know, this Council has now for some years taken a prominent part in the education of the public through its broadcasts on health matters and on nutrition. Short lectures have been broadcast on a great variety of health subjects. The subjects have been delicately handled, and there has been no suggestion of propaganda whatsoever, the lectures being purely informative on health. These broadcasts have been popular with the people and with the Australian Broadcasting Commission, and the British Broadcasting Corporation has recently asked for them. The New South Wales Branch of the British Medical Association has given a splendid start in this direction; it has cost the Branch a good deal of time and money, but I think nothing could better indicate the disinterestedness of the medical profession than these broadcasts. We get nothing out of them; in fact, the more they are listened to, the less work there will be for the doctors. The fact that this Branch of the British Medical Association has undertaken this work of public education on health matters should be a sufficient indication of the importance we attach to it. We should probably give first place in the field of preventive medicine to popular education on health and nutrition, the use of leisure and the art of living. This education should begin in the kindergarten and go on through every stage in life, by newspaper, by tract, by radio and by all other forms of publicity. Its importance cannot be exaggerated. This form of preventive medicine, the education of the public, is one which the general practitioner is always carrying out; but he needs the help of the governments so that it can be adequately done.

Other aspects of preventive medicine are now recognized. I quote from Professor J. A. Ryle, Professor of Social Medicine at Oxford University:

Good food and habits of feeding, good houses, better facilities for open-air activities and cleanliness, better education and cultural opportunity, holidays and social security would bring benefits both human and economic to the individual and to the State, beside which those accruing from all our remarkable advances in remedial medicine and surgery of the last century, valuable though they have been, and must remain, would make but a poor showing.

Our own committees have stated the same views. The chairman of the Parliamentary Joint Committee on Social Security, in a recent address at Canberra, stated "that it is the obligation of the State to raise the standing of living of that section of the people who suffer from want of necessities of life . . ."

Again, the National Health and Medical Research Council in its report two years ago stated that health was governed by social conditions, poverty, industrial conditions, housing, transport, agriculture, and medical care. You note that medical care is placed last, and rightly so. All these factors should be included under preventive medicine.

Now, what is this social security of which we hear so much lately? It seems that it is mainly a question of seeing that everybody, whether working or not, has enough money to buy the necessities of life. If that is the case, social security is the backbone of preventive medicine; but it cannot be provided by the general practitioner alone.

You will have noted my views on the present relationship of the medical practitioner to preventive medicine. You will also see that extension of preventive medicine lies only to a small extent in the practitioner's hands. There is on the other hand an enormously wide field for governmental action in promoting the building and staffing of hospitals, in supplying and equipping X-ray units and laboratories, in developing rehabilitation centres, in inquiring into the effect of pensions, in endowing and encouraging research, and in educating the people.

I have scarcely mentioned the other very important aspects of preventive medicine—adequate wages, to buy enough food and to enable people to live in decent houses. It is within the power of the governments to commence tomorrow to deal with the matters to which I have referred, and attention to them will certainly have a remarkable effect in promoting the health of the people, which by a small piece of research could be assessed mathematically. No, in future preventive medicine, social medicine and social security cannot be foisted on to the general practitioner. These are matters for the State. In these directions great advances can be made in public health; but the nationalization of the medical profession would have no beneficial effect on public health. There are no reasons why it should. There are reasons, however, why it might do harm. Free medicines and free doctors will certainly help to undermine the individual sense of responsibility, and will probably destroy the independence of the people. In Sweden, a socialist State and, I believe, advanced in social legislation and the art of living, only last year it was upheld that each individual should subscribe something towards his own benefits, so that the system would not lead to a blunting of the individual sense of responsibility. Here, again, the Government can carry out an excellent form of preventive medicine by preventing the loss of independence of the people. It would be wiser to add a sufficient sum to wages so that each individual could subscribe towards his own benefits than to give benefits as a donation from the State.

The Rehabilitation of Medical Officers.

In conclusion, I must say a word about the rehabilitation of medical officers and of all those who have been serving either in the forces or in other capacities away from their usual work. It is the business of us all to help in this rehabilitation, which, in point of fact, is going on all the time. This should be borne in mind also when we come to consider the future of medical officers when the war is over. Medical officers are constantly being discharged from the forces and gradually resuming their ordinary life. There is a tendency to assume that the change-over to civil life will take place suddenly, and that hundreds of medical officers will be discharged from the forces at one and the same moment. This is unlikely; the process must, to a certain extent, be gradual, and medical officers will have an opportunity to look around and seek their particular niche. It will not be just a hurly-burly of hundreds of doctors rushing for the same jobs. In this connexion the British Medical Association in Australia and the directors-general of the services have under way schemes for helping to absorb these medical officers into civil professional life. Here also is a method by which the government of the day can do something constructive for the public health, in which recent governments have been so interested. The Government can see to it that there is a gradual release of medical officers from the forces, and that these medical officers have the opportunity to do post-graduate work before resuming practice. In the last war medical officers were retained in the forces and were granted leave on pay for three to six months for the purpose of post-graduate study. This would be the best practical step which the Government could take to ensure efficient health services after the war.

FURTHER OBSERVATIONS ON CONGENITAL DEFECTS IN INFANTS FOLLOWING INFECTIOUS DISEASES DURING PREGNANCY, WITH SPECIAL REFERENCE TO RUBELLA.

By CHARLES SWAN,¹ A. L. TOSTEVIN, HELEN MAYO AND G. H. BARHAM BLACK,

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RECENT work (Gregg,⁽¹⁾ Swan, Tostevin, Moore, Mayo and Barham Black,⁽²⁾ and Swan⁽³⁾) has shown that maternal rubella in the early months of pregnancy may be followed by congenital defects (cataract, heart disease, deaf-mutism, microcephaly and glomerular sclerosis) in the infants born subsequently. The possibility that other infectious diseases in pregnancy may result in congenital abnormalities has been considered.⁽⁴⁾

Since the publication of our previous communication, we have had the opportunity of studying a further series of cases. The results are recorded in this paper. The series comprised twelve cases of rubella during pregnancy (one of the mothers suffered also from mumps), and one case in which there was no evidence of maternal disease during pregnancy, although the infant born subsequently exhibited congenital defects resembling those resulting from rubella. Two of the series (Cases 69 and 70) were mentioned in the appendix to our earlier paper.⁽⁵⁾

Rubella during Pregnancy and Congenital Defects.

Geographical Distribution.

At the time when they contracted German measles, all of the twelve mothers lived in South Australia, six in the metropolitan area of Adelaide and the remainder in country districts (Table I). (To avoid confusion the case numbers adopted are a continuation of those used in our previous series.⁽⁶⁾)

¹ Working with a grant from the National Health and Medical Research Council, Australia.

Annual Incidence of Cases.

In three of the cases the exanthem occurred in 1939, in two in 1940, in five in 1942 and in two in 1943. With the exception of two babies (Cases 72 and 73), all of the infants born subsequently showed congenital abnormalities.

Nature and Manifestations of the Exanthematous Disease.

Of the twelve patients, only five (Cases 63, 68, 69, 72 and 73) were diagnosed by medical practitioners as suffering from rubella. Of the seven who failed to seek medical attention at the time of the exanthem, two (Cases 62 and 66) had been in contact with relatives and friends who had contracted rubella two to three weeks before. The mother in Case 71 said that there was an epidemic of German measles in the district at the time.

Premonitory Symptoms.—Premonitory symptoms were observed by seven of the twelve mothers. Those in Cases 63, 65 and 69 complained of general malaise and headache for a few days; in Case 69 the symptoms were very severe. For a week the mother in Case 67 felt "as though she were getting 'influenza'". The mother in Case 73 had a slight "cold" for three days, and the mother in Case 70 had a bad cough and "running" nose for five or six days. The mother in Case 68 suffered from general malaise, headache, severe pains in the back and slight sore throat.

Character, Distribution and Duration of Exanthem.—In general, the type, distribution and duration of the rash were similar to that described in our previous communication.⁽⁶⁾ In Case 71 the mother said that the rash was very faint and confined to the arms. At the time she attributed the rash to the irritation caused by the wearing of a new woollen cardigan. The rash in Case 68 lasted a week; the skin of the patient's legs and finger tips desquamated three weeks later.

Lymphadenitis.—Swelling of the post-auricular or cervical glands, or of both, was present in four instances (Cases 63, 70, 72 and 73), absent in one (Case 68), and not known or doubtful in the remainder.

Concomitant Signs and Symptoms.—Sore throat occurred in three instances (Cases 63, 65 and 66). In Cases 63 and 66 it was very severe, so much so that in the latter

TABLE I.
Analysis of Type and Period of Onset of Infectious Disease during Pregnancy and of the Congenital Defects in the Infants Born Subsequently.

Case No.	Place of Residence of Mother at Time of Disease. (All South Australia.)	Age in Years.	Disease During Pregnancy.	Number of Months Pregnant at Onset of Disease.	Date of Last Menstrual Period Prior to Pregnancy.	Date of Birth of Baby.	Expected Date of Birth.	Sex of Child.	Birth Weight. (Pounds and Ounces.)	Circumference of Skull (Inches); Normal Measurement for Age and Sex in Parentheses.	Congenital Defects.	Remarks.
62	Kensington Park.	22	Rubella.	"Early in pregnancy."	—	21.3.40	—	M.	5, 0	19.75 (19.9)	Deaf-mutism.	
63	Magill.	26	Rubella.	0.5-0.75	? 22.5.42	9.2.43	? 29.2.43	M.	5, 4	17.0 (17.5)	Heart disease.	
64	Wolsley.	24	Rubella.	0.75	27.7.42	9.5.43	3.5.43	F.	7, 5	14.5 (14.5)	Left-sided cataract.	
65	Wolsley.	22	Rubella.	1.0	23.7.42	19.4.43	30.4.43	F.	6, 8.5	14.1 (15.0)	Bilateral cataract; heart disease.	
66	Cummins.	34	Rubella.	1.5-2	—	29.5.40	—	M.	—	18.5 (19.8)	Deaf-mutism.	
67	Ceduna.	27	Rubella.	1.5-2	? 5.8.40	4.5.41	? 12.5.41	F.	6, 11	18.6 (18.7)	Deaf-mutism.	
68	Torrensville.	35	Rubella.	2-2.5	25.7.42	27.4.43	1.5.43	M.	4, 2	15.0 (17.0)	Heart disease.	
69	Rosewater Gardens.	34	Rubella.	2.5	—	16.3.40	—	M.	7, 4	19.5 (19.8)	Deaf - mutism; heart disease.	
70	Blinman.	35	Rubella.	3-25	14.5.42	21.2.43	21.2.43	F.	8, 12	15.4 (15.3)	Obiteration of bile ducts.	Baby died.
71	Cowell.	26	Rubella.	? 4.0	—	11.3.41	—	M.	6, 10	19.0 (19.4)	Deaf-mutism.	
72	Broadview.	35	Rubella.	6.0	18.9.42	27.6.43	25.6.43	F.	6, 8	14.0 (13.9)		
73	Adelaide.	21	Rubella; mumps.	6.0-7.0	15.1.43	27.10.43	22.10.43	M.	7, 13	14.5 (14.3)		
74	Nunjikompita.	24	—	—	15.11.42	26.8.43	22.8.43	M.	5, 6	13.9 (14.9)	Bilateral cataract; heart disease.	Baby died.

¹ Normal data derived from "Holt's Diseases of Infancy and Childhood", by L. E. Holt, Junior, and R. McIntosh, Tenth Edition Revised, 1936, page 28.

case difficulty in swallowing was experienced even a week afterwards. The patients in Cases 65, 66 and 69 respectively complained of swelling of the throat, of swelling around the eyes, and of swelling of the face and neck. Soreness of the eyes together with photophobia was present in Cases 63, 64, 65, 68, 69 and 72. In addition, in Case 69 there was pronounced conjunctivitis. Arthritis occurred in three cases. The mother in Case 65 complained of stiffness of all joints, including those of the neck. In Case 70 the patient suffered from aching wrists; on movement they were so painful that she "was unable to lift things". In Case 72 dull pain was experienced in the wrists and knees; as in Case 65, however, the joints did not appear to be swollen. Headache was present in Cases 68, 69 and 73. In Cases 68 and 69 it was intense. In Case 68 severe backache occurred also. Aching of the back and limbs was present in Case 67. The mother in Case 68 had evening pyrexia, in Case 69 general malaise was present, and in Case 65 weakness of the legs was noticed.

Sequela.—The patient in Case 69 has suffered from "rheumatism" ever since she contracted rubella.

Previous Infectious Diseases.

Nine of the twelve mothers (Cases 63, 64, 65, 66, 67, 68, 69, 70 and 73) had suffered from morbilli. Six patients (Cases 64, 65, 66, 67, 68 and 69) had suffered from mumps, five (Cases 64, 65, 66, 67 and 68) from whooping cough, three (Cases 65, 66 and 67) from chicken-pox and three (Cases 64, 65 and 68) from scarlet fever. The patient in Case 63 stated that she had suffered from rubella nine years before.

Relation of the Period of Pregnancy at which the Exanthem Occurred to the Development of Congenital Abnormalities in the Child.

Seven of the ten mothers who gave birth subsequently to children with congenital defects had contracted rubella in the first three months of pregnancy (Table II). Three

TABLE II.

Relationship between the Time of Contraction of Rubella during Pregnancy and the Occurrence of Congenital Defects in the Infants Born Subsequently.

Month of Pregnancy.	Number of Infants with Congenital Defects.	Number of Healthy Children.	Total.
0 to 1	4 ¹	—	4
1 to 2	2	—	2
2 to 3	2	—	2
3 to 4	—	—	—
4 to 5	—	—	—
5 to 6	—	2	2
6 to 7	—	—	—
7 to 8	—	—	—
8 to 9	—	—	—
Total	10	2	12

¹ Includes Case 62.

had suffered from German measles in the first month of pregnancy, two in the second month and two in the third month. Of the three exceptions, one (Case 62) had contracted rubella "early in pregnancy", one (Case 70) when three and a quarter months pregnant and one (Case 71) when about four months pregnant. In the last-mentioned case, however, the mother was doubtful as to the exact time.

Both of the mothers (Cases 72 and 73) whose babies remained healthy had suffered from German measles when six months pregnant.

The Nature of the Congenital Defects.

In Cases 63 and 68 considerable difficulty was experienced in feeding the babies.

On combining the present cases with those of the previous series,⁽²⁾ we found that the average birth weight of 38 of the babies with congenital defects was five pounds ten and a half ounces, while that of 15 of the normal babies was six pounds eleven ounces.

Eye Defects.—In the present series there were two babies (Cases 64 and 65) with cataract (Table III). Neither of their mothers was more than one month pregnant at the time of onset of the exanthem. It is of interest to note that the mothers were sisters whose husbands were brothers. They shared the same house, and presumably were infected from the same source. Both mothers became pregnant at about the same time (Table I). They developed rubella within four days of each other. The infants born subsequently were females. In one infant (Case 64) the congenital defect was limited to left-sided cataract; in the other (Case 65) the abnormalities included bilateral cataract, heart disease and microcephaly. Clinically, the attack of rubella during pregnancy suffered by the mother in Case 65 was more severe than that in Case 64. The appearance of the cataracts was similar to that described in our previous communication.⁽¹⁾ Treatment so far has been limited to discission.

Deaf-Mutism.—Five babies (Cases 62, 66, 67, 69 and 71) were deaf mutes; all except one were males (Table IV). One of them (Case 69) suffered also from heart disease. For the most part the character of the deaf-mutism was similar to that described previously⁽³⁾—that is, deafness was not total, and high tones could still be heard. Except in Case 66, the external canal and tympanic membrane appeared normal. In one ear in Case 66 retraction of the membrane was present, probably as the result of blockage of the Eustachian tube subsequent to a cold. In our combined series of cases we found that the average duration of pregnancy at the time of onset of the exanthem in 11 of the 12 mothers whose children suffered from deaf-mutism was 2.3 months. The average duration of pregnancy under similar conditions in the 15 mothers whose babies had cataract was 1.4 months. These statistics serve to confirm our earlier impression—namely, that the nature of the congenital defect depends upon the stage of pregnancy at which the mother contracts rubella.

TABLE III.

Analysis of Congenital Eye Defects following Rubella during Pregnancy.

Case Number.	Nature of Eye Defects.	Treatment.	Result	Associated Defects.	Remarks.
64	Left-sided cataract. Central opacity with a clear peripheral zone. No nystagmus. Blockage of right naso-lachrymal duct.	Discission at 10 and 21 weeks. On the second occasion the lens nucleus came forward into the anterior chamber. The right naso-lachrymal passages were probed at five months.	At the age of 24 weeks the lens had absorbed; the thickened capsule showed a small central gap. The eye may be improved by further needling. The right eye showed no epiphora.	—	—
65	Bilateral cataract. Central lens opacity with a clear zone between it and the pupillary margin. Both eyes smaller than normal. When first seen at the age of ten weeks nystagmus was present.	Discission at 12 and 22 weeks. On the second occasion the right lens had practically absorbed.	At age of 26 weeks the right lens had absorbed completely. At 28 weeks both lenses had absorbed.	Heart disease. Microcephaly.	Child difficult to feed. Has gained weight, but slowly. Prone to diarrhoea and digestive upset.

TABLE IV.¹
Analysis of Congenital Deaf-mutism following Rubella in Pregnancy.¹

Case Number.	Nature of Deaf-mutism.	Associated Defects.
62	Does not hear mother coming up behind him. Apparently hears occasional sounds on the wireless and perhaps the noise of aeroplanes. Speech limited to the word "mum".	—
66	Mother considers that the child has been partially deaf since birth. He does not respond to calling. A motor car can be driven near him and people can walk up to him without his hearing them. He can hear the telephone ringing and the noise of aeroplanes. The deafness is much intensified when the child has a cold. The patient does not talk in sentences; he says "turk" for "turkey", "bake" for "bacon", and so on. He says one-syllable words such as "train" and "cow". The child first started to speak when he was two and a half to three years of age.	—
67	The child was first noticed to be deaf at the age of two years and two months. She can say only "mum" and "dad". She can hear the sound of two boards being clapped together, but not her mother calling her.	—
69	Deafness first noticed when the child was eighteen months old. Says a few words. Is not totally deaf.	Heart disease.
71	The mother thought that the child was deaf for the first time after an attack of either morbilli or whooping cough. He can say "da", "mum", "dad", "dad". The child seems surprised when his mother walks up behind him and touches him. He can hear the telephone ringing and the noise of a motor-car engine. He can hear high-pitched sounds. An uncle is deaf—perhaps subsequent to an attack of measles.	—

¹ No treatment was given in any of these cases.

Cardiac Abnormalities.—Heart disease was present in four infants (Cases 63, 65, 68 and 69) (Table V). Three of the four infants were males. One of them (Case 65) suffered also from bilateral cataract and another (Case 69) from deaf-mutism. In all four cases the lesion was of the acyanotic type. Bruits occurred in all of them; in Cases 63 and 69 they were systolic and in Case 65 systolic-diastolic. In Case 68 the murmur was systolic at first, but later became systolic-diastolic. In Case 65 the bruit was maximal at the apex; in the remainder of the cases it was most apparent in the pulmonary area. With one doubtful exception (Case 68), X-ray examination confirmed the clinical findings.

Microcephaly.—In the cases exhibiting other congenital abnormalities, microcephaly was pronounced in three (Cases 65, 66 and 68) and moderate in two (Cases 63 and 71). The defect was absent in Cases 64 and 70, while in Cases 62, 67 and 69 the variation of the circumference of the skull from normal was so slight that it was probably not significant.

Obliteration of the Bile Ducts.—The abnormality in Case 70 was diagnosed as obliteration of the bile ducts. In the absence of similar cases, however, the possibility cannot be denied that the occurrence of the defect in association with rubella in pregnancy may be purely fortuitous.

Congenital Defects in the Absence of History of Rubella during Pregnancy.

In Case 74 there was no evidence of any exanthem or other illness during pregnancy.

The infant suffered from bilateral cataract, heart disease and microcephaly. Clinically, the cataracts differed somewhat in type from the central lenticular opacities we have come to associate with rubella. As far as could be seen with the pupil undilated, the opacity in the right lens was complete. The opacity in the left lens was central, but irregular in outline. The child was undersized, extremely difficult to feed and gained in weight but slowly. Cyanosis was constant in the region of his forehead; at times he became generally cyanosed after feeding. A loud systolic murmur was present all over the precordium, but was most intense at the apex. On X-ray examination the heart was found to be large and globular, the appearance suggesting a congenital defect. The baby was "Rh-positive", while the mother was "Rh-negative" and had anti-Rh agglutinins in her serum in very weak titre. The baby had never been jaundiced.

The child died at the age of nine weeks. At post-mortem examination pronounced distension of the right side of the heart, wide patency of the *ductus arteriosus* and patency of the *foramen ovale* were found.

Sections of the eyes were stained with hæmatoxylin and van Gieson's stain. In the lens of the right eye the nucleus, which comprised about one-third of the whole, was displaced forwards and lay just behind the anterior lens epithelium. With the exception of a few normal lens fibres at the periphery of the equatorial region, the remainder of the lens, situated on the posterior and lateral aspects of the nuclear portion, was composed of amorphous material staining a pale buff colour. In the equatorial region there were a number of large vacuoles. The nucleus of the lens consisted of grossly degenerate and necrotic fibres, which stained an orange-buff colour. At the margin of the nucleus, especially at the anterior pole, disintegration of lens fibres into a hyaline material staining a bright yellow was observed. Occasionally the material was seen in the form of more refractile globules. The boundaries between individual fibres of the nucleus of the lens could not be detected. Inspection of the nuclei of the fibres showed vacuolation, karyorrhexis and karyolysis. In three places the products of disintegration of the lens fibres comprising the nucleus formed aggregations of granules. The granules varied in size, but on an average they were of about the same dimensions as the nuclei of the lens fibres; they stained a purplish-brown colour. The granules gave a positive reaction for calcium by the purpurin method. One collection lay just behind the anterior pole, another in the centre, and a third just in front of the posterior pole of the nucleus of the lens. The first agglomeration was arranged in lines which lay parallel to the anterior surface of the lens, and the second in lines which lay at right angles to it. The third was arranged irregularly.

In the left eye there was no displacement of the nucleus of the lens. Compared with those of the right eye, in general the lens fibres were in a better state of preservation, and the lesions affecting them tended to be focal rather than diffuse. The fibres of the equatorial region were normal. Examination of those of the inner two-thirds of the nucleus showed moderate degenerative changes characterized by granularity and the occasional occurrence of small pink globules and minute pink granules in their cytoplasm. The remainder of the lens was much more severely affected.

TABLE V.
Analysis of Cardiac Defects in Babies following Rubella in Pregnancy.

Case Number.	Signs and Symptoms of Heart Disease.	Report on X-ray Examination.	Associated Defects.
63	Rough systolic murmur all over precordium, but maximal in pulmonary area. No thrill. (At an earlier examination three weeks before, no bruit was detected.)	"The transverse diameter of the heart is enlarged and the waist filled in. Probable enlargement of the left auricle, the appearance being that of a mitral type."	—
65	Systolic-diastolic murmur, maximal over apex just medial to nipple line. Thrill doubtful.	"The heart shadow is enlarged and the configuration abnormal, suggesting a congenital lesion."	Bilateral cataract.
68	Loud systolic murmur heard all over precordium, but maximal in the pulmonary area. On examination one and a half months later the bruit was systolic-diastolic.	"The heart outline is rather globular—this may indicate a congenital defect."	—
69	Systolic murmur, maximal in the region of the pulmonary area and just below it. Bruit less audible when the child is in the upright position.	"The heart shadow is somewhat globular and its configuration suggests a congenital lesion."	Deaf-mutism.

Necrosis was most apparent anteriorly and laterally, but scattered smaller areas could be seen posteriorly; these areas of disintegration tended to separate the nucleus from the cortex of the lens. The necrotic areas were composed of amorphous material staining a bright yellow colour; lens fibres immediately adjacent to them were distorted and extremely granular. Three aggregations of granules occurred. The granules were similar to those described in the right eye, except that they stained purple rather than purplish-brown and that many were slightly larger in size. They were arranged in strata which followed the line of the lens fibres. The aggregations were equivalent in thickness to the transverse diameter of from 10 to 20 lens fibres. One occupied the anterior surface of the nucleus of the lens, while another lay a little deeper in the nucleus. The latter collection did not extend so far laterally as the first, but was of greater thickness. A third layer of granules occurred at the posterior pole of the nucleus. Scattered throughout the better preserved lens fibres of the cortex of the lens were spindle-shaped and citron-shaped agglomerations of minute pinkish granules. In breadth the collections occupied from three to six lens fibres; they were about twice as long as they were broad.

The mother stated that three months before she became pregnant, her husband had suffered from an illness lasting for about a week, and characterized, as far as could be remembered, by general malaise, extremely severe lumbar pain and occasional vomiting. She also had suffered from the disease a few days after her husband, but in a much milder form. The condition was epidemic in the district at the time. From inquiries made of other patients it would appear that violent headache was also a common symptom. No mention, however, was made of rashes.

The general resemblance of the congenital abnormalities of the infant in Case 74 to those occurring subsequent to rubella suggested that they might be due to the same cause. Because disease during pregnancy was denied, we considered the possibility that the prenatal infection might have been rubella. Arguments against this suggestion were that the patient claimed to have suffered from German measles about four years previously, that the disease did not resemble the usual type of rubella described in the text-books, and that both clinically and pathologically the cataracts were somewhat dissimilar from those ordinarily associated with rubella. Some of these arguments may be refuted, as there is evidence to show that German measles is becoming a much more severe type of disease and that second attacks may occur (see below). Moreover, the infection may occur in the absence of an exanthem (Habel,⁽⁴⁾ Hiro and Tasaka⁽⁵⁾ and Flöystrup⁽⁶⁾). In the present instance, on the available facts, however, no definite opinion can be given.

With regard to the suggestion that infection prior to pregnancy might result in congenital abnormalities, we are on even less certain ground. In this connexion it may be mentioned that Gregg⁽⁷⁾ reported a case of congenital cataract in which rubella was said to have occurred in the mother three months before conception. In such an instance it would be necessary to postulate that in the time which elapsed between the infection and the onset of pregnancy the virus lay latent in the maternal tissues, but that it became reactivated on coming into contact with the rapidly dividing and relatively more susceptible cells of the embryo. Examples of the persistence of viruses for long periods in the tissues of infected animals are cited in the papers of Bedson,⁽⁸⁾ Oltzky and Long,⁽⁹⁾ Slavin⁽¹⁰⁾ and Traub.⁽¹¹⁾ The last-mentioned author showed also that mice acting as carriers of the virus of lymphocytic choriomeningitis were able to transmit the disease to their offspring *in utero*.

Absence of Congenital Defects following Mumps in Pregnancy.

Previously⁽¹²⁾ we described a case of bilateral congenital corneal opacity in an infant whose mother suffered from mumps when three and a half to four months pregnant. In the present series one mother (Case 73) contracted mumps and also rubella during pregnancy; the baby was normal. It should be noted, however, that both of the infections occurred relatively late in pregnancy.

Discussion.

In general, the results of the present investigation support the conclusions reached earlier.⁽¹³⁾

On combining the present cases with our previous series,⁽¹³⁾ we found that of 61 mothers who contracted rubella in pregnancy, 41 bore children with congenital defects. With 68 of Gregg's cases and our own 41, a total of 109 such cases has been recorded so far in this country. (We discarded ten of Gregg's cases because a history of German measles during pregnancy was lacking.)

Clinically, we have little doubt that the exanthematous disease which occurred in our cases during pregnancy was German measles. In such cases confirmatory evidence could be obtained by the isolation from the mothers at the time of the infection of a virus identical with that of rubella. Furthermore, attempts should be made to determine whether the inoculation in the early stages of pregnancy of the virus into susceptible animals—for example, the monkey—is followed by congenital defects, similar to those described, in the offspring born subsequently.

The symptomatology of the disease in the mothers in the present series indicates, as Gregg⁽¹⁴⁾ and we⁽¹⁵⁾ mentioned previously, that a much more severe type of rubella is occurring. That the alteration in the character of the disease is not confined to this country is shown by the reports of Hodges,⁽¹⁶⁾ Harrison,⁽¹⁷⁾ Sprott,⁽¹⁸⁾ Evans,⁽¹⁹⁾ and Humphrey and Ekermeier.⁽²⁰⁾

We were unable to reach any definite conclusion concerning the relationship between the intensity of the maternal disease during pregnancy and the extent and severity of the congenital abnormalities in the infants born subsequently. The data in Cases 64 and 65 (see above) favoured the positive view. In contrast, in Case 71 the attack of rubella was limited to a faint rash on the arms, but in extent and severity the congenital defects in the infant were similar to those of the babies in Cases 66 and 67, whose mothers had suffered from severe attacks of rubella.

From time to time parents who have had an infant congenitally abnormal as the result of rubella have sought our counsel on the advisability or otherwise of having further children. It has been our practice to reassure them. In view of recent experimental work by Habel⁽⁴⁾ and of clinical evidence (Humphrey and Ekermeier⁽²⁰⁾ and Geiger⁽²¹⁾), it cannot be gainsaid that second attacks of rubella occur. (In the present series one mother (Case 63) said that she had had a previous attack of rubella.) The chances of a second attack of the disease in pregnancy, however, especially at the period (the first three months) when congenital defects are likely to result, must surely be very remote.

Deaf-mutism occurred more frequently and cataract less often among the present cases than among those described in our earlier series. This alteration may be apparent rather than real, because in the present series there was a greater proportion of children old enough for the detection of the former defect. Because of the striking and obvious appearance of the cataracts, affected children are brought for treatment at a very early age; therefore we were able to include a greater proportion of these cases in our previous communication.⁽¹³⁾

Earlier⁽¹³⁾ we suggested that the effect of repeated doses of convalescent serum or of pooled adult serum or plasma should be tried, both as a prophylactic and as a curative measure. The efficacy of such treatment is as yet undetermined. It is of interest to note, however, that recently Barenberg, Levy, Greenstein and Greenberg⁽²²⁾ have presented presumptive evidence that pooled plasma is valuable as a prophylactic agent against rubella.

Summary.

In the course of the present investigation thirteen infants were examined; eleven were found to have congenital abnormalities.

In twelve instances the mothers had suffered during pregnancy from rubella; ten of the infants born subsequently exhibited congenital defects. The abnormalities included cataract, deaf-mutism, heart disease, microcephaly and obliteration of the bile ducts. With three exceptions

(two of them doubtful) all of the ten mothers with congenitally defective children had contracted rubella within the first three months of pregnancy.

A case of congenital cataract, heart disease and microcephaly is described in which the mother denied all knowledge of any disease during pregnancy.

In a case in which mumps and rubella developed at a late stage of pregnancy, the infant born subsequently was normal.

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References.

- (1) N. McA. Gregg: "Congenital Cataract following German Measles in the Mother", *Transactions of the Ophthalmological Society of Australia (British Medical Association)*, Volume III, 1941, page 35.
- (2) C. Swan, A. L. Tostevin, B. Moore, H. Mayo and G. H. Barham Black: "Congenital Defects in Infants following Infectious Diseases during Pregnancy", *THE MEDICAL JOURNAL OF AUSTRALIA*, Volume II, 1943, page 201.
- (3) C. Swan: "A Pathological Examination of Three Infants Dying from Congenital Defects following Maternal Rubella in the Early Stages of Pregnancy" (in the press).
- (4) K. Habel: "Transmission of Rubella to Macacus Mulatta Monkeys", *Public Health Reports*, Volume LVII, Number 31, July 31, 1942, page 1126.
- (5) Y. Hiro and S. Tasaka: "German Measles is a Virus Disease", *Monatsschrift für Kinderheilkunde*, Volume LXXVI, 1938, page 328; cited by K. Habel, *loc. cit.*
- (6) G. Flöystrup: "Rubella without Rash", *The British Journal of Children's Diseases*, Volume XX, 1923, page 20.
- (7) S. P. Bedson: "Some Reflections on Virus Immunity", *Proceedings of the Royal Society of Medicine*, Volume XXXI, 1937, page 59.
- (8) P. K. Olitsky and P. H. Long: "Relation of Vaccinal Immunity to the Persistence of Virus in Rabbits", *The Journal of Experimental Medicine*, Volume L, 1929, page 263.
- (9) H. B. Slavin: "Persistence of the Virus of St. Louis Encephalitis in the Central Nervous System of Mice for over Five Months", *The Journal of Bacteriology*, Volume XLVI, 1943, page 113.
- (10) E. Traub: "Epidemiology of Lymphocytic Choriomeningitis in a Mouse Stock Observed for Four Years", *The Journal of Experimental Medicine*, Volume LXIX, 1939, page 801.
- (11) G. M. W. Hodges: "Brachial Neuritis following Rubella", *British Medical Journal*, Volume I, 1940, page 548.
- (12) B. L. Harrison: "Neuritis following Rubella", *British Medical Journal*, Volume I, 1940, page 637.
- (13) N. A. Sprott: "Is the Virus of Rubella Becoming Neurotropic?", *British Medical Journal*, Volume II, 1940, page 154.
- (14) F. B. P. Evans: "Severe Rubella", *British Medical Journal*, Volume I, 1942, page 240.
- (15) T. F. Humphrey and E. W. Ekermeyer: "Rubella: Report of Epidemic with Unusual Number of Complications and Relapses", *Ohio State Medical Journal*, Volume XXXIII, 1937, page 406; cited by K. Habel, *loc. cit.*
- (16) J. C. Geiger: "Epidemic of German Measles in a City Adjacent to an Army Cantonment", *The Journal of the American Medical Association*, Volume LXX, 1918, page 1818.
- (17) L. H. Barenberg, W. Levy, N. M. Greenstein and B. Greenberg: "Prophylactic Use of Human Serum against Contagion in a Pediatric Ward: Further Observations, with Special Reference to Measles and Rubella", *American Journal of Diseases of Children*, Volume LXIII, 1942, page 1101.

Appendix.

We believe that every effort should be made to acquaint the general public with the possibility that maternal rubella early in pregnancy may be followed by congenital abnormalities in the infants born subsequently. Our reasons are as follows:

1. German measles is looked upon by the laity as such a mild disease that many patients fail to see a medical attendant. In our combined series of 41 cases of various types of congenital defect subsequent to rubella, the mothers of approximately half of the babies did not obtain medical advice at the time of the infection, and in consequence received no treatment.

2. If they were aware of the danger, pregnant women would take every care to avoid contact with patients suffering from rubella.

3. If the disease was prevalent, such women could report to their medical attendants with a view to receiving prophylactic inoculations of serum.

It is obvious that much care will have to be exercised as to the means by which the information should be given to the general public, otherwise undue alarm may be caused. The advisability of making rubella a notifiable disease should also be considered. Furthermore, we suggest that the compulsory notification to a central authority of all types of congenital abnormality, together with data regarding the association or otherwise of the defects with maternal disease during pregnancy, might lead to the gathering of information of great value.

THE TRAINING OF MEDICAL OFFICERS FOR WAR.

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To the doctor in civilian life who learns that he is to receive a commission and to commence service in the Australian Army Medical Corps must come the realization of how little he knows of the army and its methods, customs and demands. Medical practitioners of all grades of experience, from the new graduate to the established specialist, were on the outbreak of war and during the course of war suddenly called upon to fill vacancies in the rapidly growing military forces. The great majority of doctors are not soldiers and know little or nothing of army methods; yet sometimes at short notice they must take the rank and adopt responsibilities which in other arms of the services have taken years of study and work and promotion to achieve and carry.

In the early months of this war this country was fortunate in having a nucleus of experienced medical officers who had served in the last war and in the militia. They were able to take up their army duties and the responsibilities of their rank immediately, and at the same time to help to train those without army experience. With the phenomenally rapid growth of the Australian Military Forces and their accompanying medical units there was an obvious lack of experienced medical officers. Those with previous training carried a heavy burden; those without had to gain their experience in the hard school. So urgent were the demands, not only for units in the Commonwealth, but for new units and reinforcements to serve abroad, that adequate induction training was not always possible.

During the latter part of the campaigns in the Middle East reinforcement medical officers underwent a course of training for fourteen days at the Australian Army Medical Corps wing of the Australian Imperial Force Reinforcement Depot (Middle East)—an all too brief period to fit them adequately for their task. For many the experience gained in the university regiments, particularly those with a medical wing, proved to be of great value, and great credit is due to the men whose foresight and hard work in organizing and maintaining the regiments have helped so many.

The many difficulties which confront the medical officer throughout his army career—particularly in his early days—can be made less formidable by a comprehensive and adequate course of instruction. The object of training

today is to fit the newly appointed medical officer for one or all of the many tasks which he may be called upon to perform. In the course of his army duties he may be a regimental medical officer, or he may be sent to a field ambulance, a casualty clearing station or a general hospital, or he may be a hygiene officer or a specialist. He may be required to perform administrative duties as a deputy assistant director of medical services. Each of these duties has its own peculiar problems.

The army now provides a fairly comprehensive number of training schools for medical officers. Some of these schools function continuously, and others are organized to meet requirements. Land Headquarters Australian Army Medical Corps School in Victoria provides for a six weeks' course in all branches of Australian Army Medical Corps duties, particularly in those related to field tasks, organization and administration. The school can accommodate 25 students in comfortable quarters, and the staff comprises experienced officers and warrant officers of the permanent forces. Land Headquarters School of Hygiene and Sanitation in New South Wales is devoted entirely to the teaching of these subjects as related to the army. The normal course for medical officers is three weeks. The school is remarkably well housed, equipped and staffed. Officer Cadet Training Unit provides vacancies for medical officers who are enabled at this course of instruction to gain an insight into army routine and tactics, which may prove to be of great value to them subsequently. Unfortunately vacancies are few, and not many medical officers can avail themselves of this interesting—and, incidentally, very tough—course. Vacancies also occur in staff courses and tactical schools, and it is of interest to record here that medical officers at these schools have done extraordinarily well, despite the solid opposition. Schools of radiology are conducted in Sydney by the Australian and New Zealand Association of Radiologists, and in tropical medicine at the School of Public Health and Tropical Medicine, Sydney. Every medical officer is now required to attend a course of instruction in chemical warfare and its physiological aspects. Training is encouraged and widely carried out in formations, and regular clinical meetings are held in many areas at general hospitals.

Because of the availability of new graduates and those who have completed a term as resident medical officer at civil hospitals, medical officers now become available for army service in groups. To expedite the schooling of these groups special schools are held as required at an Australian Army Medical Corps training battalion in Victoria. It is the policy of the Director-General of Medical Services, Australian Military Forces, wherever possible, to school every incoming medical officer, before he commences duty with a unit, in Australian Army Medical Corps field training, administration, hygiene and sanitation and medical aspects of chemical warfare.

The object of an Australian Army Medical Corps school is to enable the officer to acquire physical fitness, a thorough knowledge of army methods, customs and subjects and a soldierly outlook; to gain confidence in himself and a knowledge of the work and problems of the soldier in the field. The duration of a course is five to seven weeks, and it includes work and bivouac in the field with troops, under conditions which approach as nearly as possible those found on active service.

While we are at war we must do everything possible to fit the medical officer for the conditions he will meet when at war. Commanding officers must be relieved of the burden of carrying untrained officers as non-efficient members of their units. Until recently military text-books did not cover the needs of modern warfare, or the new conditions met with in jungle warfare. All these factors have been considered in formulating the syllabi of a school. The subjects taught include the following: drill, physical training, the use of small arms, first aid (in which the army demands a high standard), the carriage of wounded, anti-gas training, map reading, fieldcraft, minor tactics, administration, military law, message and letter writing, the use of army forms, army customs and mess etiquette, methods of supply in the field, camp inspections and methods of improvisation of medical equipment.

Movement by road and convoy is taught during exercises. Tactical exercises with and without troops are carried out in the field, in which each officer is taught to play his part in the duties of a regimental medical officer or as an officer of a field ambulance. Officers are expected to write appreciations and operation orders.

Experienced senior officers visit the schools and lecture and demonstrate in a number of subjects. A regimental medical officer who has had long and creditable experience in battle is invited to give a "man to man" talk, rather than a lecture, on the duties of a regimental medical officer, and a free discussion is invited. An experienced field ambulance officer gives his personal experiences. Other subjects fully dealt with are medical boarding, medical supplies and equipment, dental services, principles of army surgery, the management of the soldier with cardiac disorder and the dyspeptic soldier, the principles of army hygiene, organization of the Australian Army Medical Corps and of a general hospital, the work and functions of the Australian Red Cross Society, supply in the field, the work of the Australian Army Medical Corps with parachute troops and in combined operations. A full day is devoted to a refresher course in the diagnosis of malaria in the field.

Completion of this course enables the medical officer to take his place with more confidence in any one of the many appointments to which he may be posted. Furthermore, in the event of his services being required at short notice to fill a different type of appointment—as, for example, from hospital general duties to the post of regimental medical officer, or from a post as regimental medical officer to work in a field ambulance—he will be armed with at least a basic knowledge of his duties and be of greater value to his unit than if he were untrained.

Observation of the work done by officers during their training periods helps to indicate to the chief instructor the type of duty for which the officer is best suited, and this becomes a guide to his future posting. By his becoming familiar with modern methods of instruction, a medical officer is assisted in his duties in instructing Australian Army Medical Corps personnel under his charge.

The training is made as interesting and practical as possible. Visual training is carried out on every possible occasion, and films and "strip" films are widely used. Work in the field with troops is a new experience for many of the officers; but to know soldiers and their problems, and to endure with them their hardships, to come to know the "old soldier" and how to handle him, is to accomplish one of the hardest tasks on the road of experience of the medical officer.

The officers are visited towards the end of the course by the Director-General or Deputy Director-General of Army Medical Services, who impresses on them the object of their training and their responsibilities in the service.

Summary.

1. The majority of medical practitioners who are called up for army work in wartime have had little or no military experience. Experience in the last war and in militia service provided the nucleus of training at the outbreak of war.
2. During the rapid growth of the Australian Army Medical Corps it was not practicable to institute preliminary training schools for medical officers.
3. The object of training is set out and mention is made of earlier training establishments. Existing schools for the training of medical officers are described.
4. An account is given of the subjects taught in Australian Army Medical Corps schools, including lectures and demonstrations by visiting officers. The schools provide an indication for selection for future postings to units.

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The Medical Journal of Australia

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PSYCHOSURGERY.

OPERATIVE SURGERY and mental disease are as widely separated as the poles, yet the former has in recent years been used in treatment of the latter. This association, had it been foretold, would have been incredible to surgeons of not so long ago who declared that surgery had reached its zenith. During recent years, however, progress has been made, and though final conclusions have by no means been reached, medical practitioners should be aware of the methods adopted and of the claims made for their adoption. From time to time reports of lobotomy in mental conditions have appeared in current medical journals, but these have not dealt fully with the subject. In August, 1941, there appeared in *The Journal of the American Medical Association* the report of a round table discussion in which many active workers in the subject took part; this discussion, though somewhat difficult to assimilate, perhaps because of the method of presentation, will give a very good idea of the whole subject. In the "International Abstract of Surgery" for January, 1944, in *Surgery, Gynecology and Obstetrics* of the same date, there has been published a "collective review" by A. Earl Walker.

Walker begins by showing that all through the ages the treatment of mental disease has been directed at one time or another toward practically all the bodily organs, the choice of organ depending on the prevailing conception of the psyche. The Edwin Smith papyrus shows that the Egyptians realized that damage to the frontal lobes was likely to produce mental disturbances; in such cases they advised "verbal therapies". Walker then recalls that in 1890 Burckhardt argued that a mental disturbance could be relieved by removal of that portion of the brain which normally carried out the specific function involved. He operated on several patients who received benefit. Burckhardt emphasized that his purpose was not so much to cure the patient as to change him from a dangerous sick person to a harmless one. Walker does well to refer to this pioneering work and to give credit to Burckhardt, for the present object of what is known as psychosurgery

is just that of the purpose set out by Burckhardt. Burckhardt's work "remained buried beneath the accumulating earth of medical literature until recent archival research uncovered it". The stimulus for modern psychosurgery came from a symposium on the frontal lobes at the second International Neurological Congress, held at London in 1935. Walker states that one of the most pertinent observations presented at the congress was that of Carlyle Jacobsen who had noted that "prefrontal lobectomized chimpanzees", unlike animals not operated on, did not show evidence of tension, anxiety or "neurotic behaviour" when they made errors in their test performances. At this congress Egas Moniz, a Portuguese neurologist, stated that he was impressed by disturbances of behaviour reported as the result of lesions of the frontal lobes. "He considered that certain mental states which appear to have no anatomical substrata were the result of lack of the normal flux of psychic processes due to an inflexibility of certain neuronal relationships. He argued that if these could be altered or broken, the conduct of the individual would become normal, being no longer hampered by the fixed neural patterns." Since lesions of the frontal lobe modified behaviour, Moniz thought that the abnormal neural fixation was probably in the connexions of the prefrontal cortex. On this basis he devised his operation of cerebral leucotomy, in which the fibre pathways to the cortex were severed. Italy alone in Europe received Moniz's communication with enthusiasm, other countries like England, France and Germany being engrossed with psychoanalysis and shock therapy. In America, W. Freeman and J. W. Watts introduced the operation and have been instrumental in securing its recognition as a therapeutic method.

Of the technique of prefrontal lobotomy it is not necessary for our present purposes to go into detail. Walker describes the techniques adopted by Moniz, by Freeman and Watts, by Lyster, and mentions those of others. It is sufficient to state that if the operation has been extensive enough, a peculiar state of apathy ensues.

Undisturbed, the patient lies quietly, eyes closed, with a serene countenance, in contrast to the previous agitated, tense, drawn appearance. If spoken to, the eyes are opened, the patient calmly responds, and then closes the eyes. Spontaneous comments are rarely made. If the patient is interrogated, it becomes obvious that he or she is confused and completely disoriented, but seems to be quite unconcerned about it.

This somnolent apathetic state is aggravated for the first few days and is thought to be due to oedema. Within a week the patient is again awake and alert, although inertia persists to some degree and sometimes indefinitely. Walker points out that the most striking alteration in behaviour is a frankness and lack of restraint which are especially manifested in speech. The patient is apt to speak his mind, tactlessly saying things which he realises at once he should not have said. An occasional patient becomes aggressive, dictatorial, irritable and irascible. At the round table discussion previously mentioned, Freeman said that the operation resulted in an attenuation of the impact of psychotic ideas on the patient. It was, he said, as though the patient was no longer interested in the ideas—he lost interest in himself. Freeman explained this by remarking that the frontal lobes are concerned with foresight, with looking into the future and with the consciousness of the self. The following glowing picture of patients recovered from the operation is painted by

Freeman and Watts in what by all accounts appears to be a remarkable book,¹ not available for reference:

Most of the patients are able to live fairly active, constructive lives, free from the harassing doubts and fears that characterized their illnesses, with their intelligence intact and their interests directed outward. Many of them are better adjusted than they have ever been in their adult period of existence. Some of them are taking on new responsibilities and are equipped with sufficient energy and imagination to drive forward unhampered by the restraining influences that reduced them previously to vacillating insecurity. Almost all of them find existence more pleasurable and they can adjust better in their environment. By altering the personality of the individual, prefrontal lobotomy seems to offer something of importance in the handling of the psychoneuroses and psychoses.

Although figures dealing with results of treatment, especially of mental conditions, are shorn of much of their value when the state of patients before treatment is not described with the results, it will be useful to quote for what they are worth figures given by Walker and taken from a survey by Ziegler of 17 American centres. Ziegler collected records of a total of 582 cases. Among these there were 27 deaths—11 at operation and 16 later. Of the remaining patients the condition is described as follows: worse, 8; unchanged, 60; slightly improved, 111; much improved, 192 (32.9%); recovered, 184 (31.3%). The "occupational status" of the patients is described as: hospitalized, 265; working part or full time, 235.

We do not propose to dissect these figures further, nor to refer to experience of the method in affective psychoses, schizophrenia, obsessive neuroses and the other neuroses, as discussed by Walker. The picture so far presented has been that produced by enthusiasts. If statistics alone are to be the guide, then lobotomy is to be recommended and practised in every mental hospitals department. But let us for a moment pay attention to some criticisms that have been put forward. At the round table conference already mentioned R. R. Grinker pointed out that on both sides there was obviously a good deal of preconception and emotional bias. He said that those who had taken up the procedure had been interested in physical therapy in psychiatry, and this in turn had been based largely on a partially expressed and a somewhat unexpressed feeling that the psychoses had a definite organic basis. On the other hand those who opposed the method had an emotional attitude towards a mutilating operation which destroyed brain tissue. He thought that as long as it was realized that there was a bias on both sides, others might be able to distinguish fact from bias. Grinker criticized several points as well. He said that it was stated that patients untreatable by conservative methods were selected, and he asked whether thorough-going psychological study and treatment were being given to the public hospital patients before they were chosen for operation. He directed attention to the short duration of the patient's illness; he had been surprised to find that many had been operated on after only a few months of mental illness, and he added that even the natural process of recovery had not been allowed to take its effect. This would, of course, be inexcusable. While patients with many types of mental illness had been included among those treated, Grinker thought that it was a good sign that so much stress was laid on the main presenting symptom, anxiety or apprehension. The indication for

operation was in fact a question of the degree of anxiety. He held, and there will surely be wide agreement with his view, that it is an extremely dangerous thing for man to assume that he is capable of judging quantity of anxiety and quantity of suffering, that he can tell exactly what dose of anxiety is normal and what is pathological, and on that basis perform a mutilating brain operation. The most important consideration in the whole question is that "once one cuts, there is no return".

If an attempt is made to state some general conclusions on this subject, it will have to be admitted that lobotomy can effect profound changes in the mental condition of persons suffering from abnormal states. It will also have to be admitted that the future place of the method in the psychiatrist's equipment has not been determined. Too much emphasis cannot be laid on the fact that before operation is considered full trial must be made of every other method. Again the patient's point of view must be kept constantly to the fore. The temptation may arise to advocate lobotomy because it will make a difficult patient easier to manage. This should not be allowed to influence a decision unless it is clear that the new type of existence to which the patient is to be permanently condemned is to make life more tolerable for him. Many cases will have to be studied in their entirety—from the earliest stage of mental alienation onwards—before a psychiatrist will be able to claim competence in this field. And even then he will need to be for ever on his guard against preconception and bias. It will be clear that the old catch-phrase about cooperation will apply here. But perhaps more than this, there will be need for the surgeon undertaking the work to have much more than a nodding acquaintance with mental disease and its assessment. He does the cutting and he must shoulder the responsibility for what he does.

Current Comment.

DERMATITIS DUE TO SULPHONAMIDES.

DURING the last few years a good deal of interest has centred around the cutaneous lesions sometimes occasioned by the use of the sulphonamides. Writers on the subject are apt to remark that the specialist in diseases of the skin is aware of these skin manifestations—he generally has the task of treating the patient—but that the general practitioner and, we might add, the surgeon, do not always realize how severe involvement of the skin may be. The sulphonamides have been used in such varied conditions and with such telling effect that they may easily be given orally or applied to wounds or skin conditions when they should not be given or when they cannot be looked on as essential. Attention has been directed to the subject recently by B. C. Tate and I. Klorfajn,² who have been attached to military units in the Middle East. Before their work is described reference will be made to some of the earlier work.

The different mechanisms by which cutaneous reactions to sulphonamides may be brought about, were described by D. Bloom in an article dealing with the danger of such reactions.³ He stated that: (a) They may be primarily toxic effects. (b) The majority are allergic in nature. (c) The reaction may be caused by a combination of toxic and allergic effects. (d) Exposure to sunlight may be the precipitating factor. Bloom points out that

¹ W. Freeman and J. W. Watts: "Psychosurgery: Intelligence, Emotions and Social Behaviour following Prefrontal Lobotomy for Mental Disorders", 1942. Quoted in "The 1942 Year Book of Neurology, Psychiatry and Endocrinology", page 94.

² The Lancet, January 8, 1944.

³ New York State Journal of Medicine, August 15, 1943.

the skin, like any other organ or system of organs in the body, may be affected alone without any necessary involvement of any viscera or body system. For the production of primary toxic effects Bloom presupposes some unknown weakness in the cells of the individual or in the detoxicating mechanism; they may also, he thinks, be caused by the overwhelming action of an excessive amount of the drug or its too prolonged administration. The allergic response, giving rise to most of the skin reactions, is the result of an acquired hypersensitivity of the skin. H. N. Cole, in a report on the local use of sulphonamide compounds in dermatology, authorized by the Council on Pharmacy and Chemistry of the American Medical Association,¹ states that when sulphonamides were first used externally observers reported that no reactions occurred. As the preparations became more widely used, reactions made their appearance. Wiener, for example, observed four cases of cutaneous hypersensitivity to sulphathiazole and sodium sulphathiazole and ointments containing these substances. Cole remarks that after all there are very few drugs to which an occasional patient will not be sensitive. He then refers to a different kind of "reaction or sensitization" which has been reported. As an example of this, he instances a case reported by Sams and Capland. These observers applied sulphathiazole powder on two different occasions to the external auditory meatus of a patient who was suffering from dermatitis of that organ. Later the drug was given orally with resultant generalized erythematous macular and pustular reaction and swelling of the face and ears. These cases may be multiplied many times by reference to the literature.

Tate and Klorfajn, in the article already mentioned, report an extensive experience. In the six months, October, 1942, to March, 1943, among a total of 2,280 patients admitted to the skin department of a military hospital, there were 55 who suffered from sulphonamide dermatitis produced by local application of sulphonamide drugs. The clinical course was similar to that generally followed in cases of epidermal sensitization caused by local contact. After a period of sulphonamide application to some skin disease or minor injury an irritating dermatitis appeared. At first the dermatitis was confined to the area under treatment (in two cases it remained in that area), but then other regions became affected. The secondary eruption usually had the distribution commonly seen in cases of sensitization to other chemicals, but in four cases it was strictly limited to areas exposed to light. In two instances, though covered areas were affected, the dermatitis was specially severe on the exposed parts. This description of the clinical features given by Tate and Klorfajn for practical purposes covers the different modes of production. They point out that in their cases the dermatitis was always eczematous, that is, there was an inflammatory reaction with oedema of the skin and with innumerable intraepidermic vesicles scattered throughout the affected area. The severity of the condition varied a good deal and apparently depended largely on the length of time that the sulphonamide therapy had been continued after sensitization was established. It was difficult to assess the number of applications of sulphonamide which were necessary to cause sensitization. In thirty cases the time was known fairly accurately. In eleven cases the period of treatment before the onset of symptoms was from four to seven days; in ten cases the period was from seven to fourteen days; in nine cases the period was over fourteen days. In 15 of the 55 cases the original disease was impetigo, in 12 it was ecthyma, in eight abrasions were the original condition and in four cases septic insect bites. Apparently no recognizable constitutional predisposition was necessary for the development of sensitization.

The diagnosis in Tate and Klorfajn's series was confirmed by patch tests and by the oral administration of one of the sulphonamides. In regard to the latter a recrudescence of the eruption was caused in every case in which a patch test had produced a reaction. Further,

the sensitization demonstrated in this way was found to be a group sensitization—patients sensitized to one of the sulphonamide drugs are thereafter sensitive to other members of the group. Observations to demonstrate this group sensitivity were made with sulphanilamide, sulphapyridine, sulphathiazole and sulphaguanidine. The important point about this sensitization is that it was often so severe as to preclude subsequent administration of these drugs in effective doses for other diseases.

Tate and Klorfajn report two cases of what they call apparent allergy to sunlight following sulphonamide dermatitis. In one of these a patient had sulphanilamide powder applied to "cold sores" on the nose. After a week a rash appeared, and another week later he presented a generalized vesicular eczema. After the eruption had subsided exposure to the sun provoked an acute vesicular eczema on all the exposed areas with a sharp line of demarcation. Reexposure three weeks later produced a less severe recrudescence, but 18 days later he could be exposed to the sun with impunity. All this time patch tests with sulphanilamide gave a positive reaction. These cases are of particular interest, and reference should be made to another report on sunlight and sulphonamide eruptions by R. G. Park and W. M. Platts, of the New Zealand Medical Corps, who made a clinical study of 27 cases in 1942.² The patients reported by them were undergoing treatment for venereal disease in the Middle East. Of the 27 patients, 21 were taking sulphanilamide and six were taking sulphapyridine. Photosensitivity occurred from the eighth to the tenth day of the administration of the drug. In 17 cases the eruptions were limited to the parts exposed to the sun; in the remainder the rash was most pronounced on the exposed parts, but other parts were also affected. The presence of melanin was found to be a protection against the eruptions. One of the observations made in support of this statement is that no eruptions were seen among Maoris, though as many as 100 Maoris were among the 800 patients treated during twelve months.

No mention has been made of the different types of skin lesion or of treatment, the intention being to emphasize the fact that skin lesions do appear and that caution is necessary in the use of sulphonamides. In regard to the treatment it may perhaps be stated that Tate and Klorfajn remark that desensitization has been achieved, but that it is not yet known whether it will be permanent or whether the method will be universally applicable. In regard to the caution needed in the use of these drugs, it must first of all be remembered that when they are used the dosage and period of application or administration should not exceed the requirements of the infection. It should not be necessary to state that trivial conditions and those amenable to other forms of treatment should not be treated with these drugs. The drugs should not be given to persons known to be sensitive to other drugs. Needless to say, they should always be used under medical supervision. Cole stated that though sulphonamides act particularly well in powder form in chancroidal infection and in an oil-in-water emulsion base in impetigo, in ecthyma and in acute pyococcal infections, they should not be used in these conditions, except in chancroidal infection, until other measures have failed. He also added that sulphonamides should not be used locally for more than five days because of the danger of sensitizing the individual and perhaps later precluding internal sulphonamide therapy in the treatment of a far graver disease such as pneumonia or a bacteremia. Tate and Klorfajn are more drastic. They state that topical sulphonamide therapy for skin diseases and minor injuries is unjustifiable and should be discontinued. It should, they hold, be reserved strictly for cases in which to withhold it might endanger life or lead to deformity. In view of such declarations as these, practitioners will be wise to go warily in the local use of sulphonamides. The sensitization by sunlight is of particular interest to Australian doctors because of the known effects of the sun's rays in other conditions such as skin cancer.

¹ *The Journal of the American Medical Association*, October 16, 1943.

² *British Medical Journal*, September 12, 1942, page 308.

Abstracts from Medical Literature.

DERMATOLOGY.

Symmetrical Lividity of the Soles.

L. M. NELSON (*Archives of Dermatology and Syphilology*, June, 1943) describes the condition of a soldier who two months previous to his first visit to the dermatology clinic had noted that his heels had turned white and that his feet had an offensive odour. During the month preceding his visit he noted that the involved areas increased in size, spreading up the sides of the heels, and that the plantar surfaces of the toes had become red and perspired excessively. Examination of the feet showed lesions extending round the borders of the heels, leaving an uninvolved area in the centre. The lesions extended up the sides and the posterior surfaces of the heels for about three centimetres. They were fairly well demarcated and consisted of thickened, white central areas, which appeared to contain numerous vesicles, although none were actually present. The borders of the lesions were violaceous. The plantar surfaces of the toes which were in contact with the shoes also showed violaceous erythema, as did the anterior portion of the balls of the feet. The entire involved area was wet with sweat. A typical offensive odour was present. An investigation of four cases was made. After a foot had been surgically prepared, a six-millimetre biopsy punch was used to remove two pieces of tissue in each of the four cases. One of the pieces of tissue was thoroughly ground up and inoculated on Sabouraud's agar, blood agar and anaerobic brain-heart infusion broth. The other piece of tissue was sectioned and stained for microscopic examination. No pathological organisms were demonstrated in the lesions either by culture methods or by direct scrapings. The microscopic picture was not diagnostic. The author discusses the treatment of the condition by various other observers. Every patient in the author's series was instructed to wash his feet daily and put on clean socks at least once a day and a dry pair of shoes each morning. The most effective treatment was the use of the following dry powder: 5% powdered alum, 5% tannic acid and 10% boric acid in talcum powder. Daily soaks in a 1 in 5,000 solution of potassium permanganate proved valuable in conjunction with the drying powder. The disease is probably a form of localized hyperhidrosis, but should be differentiated from other forms because of its characteristic clinical picture.

Treatment of Scabies in Wartime.

M. OPPENHEIM AND H. A. SMITH (*Archives of Dermatology and Syphilology*, October, 1943) describe the method for a rapid cure devised by one of them in Vienna during the first world war. Patients with serious eczema of *impetigo staphylogenes*, old persons, children under six years of age, patients seriously ill and pregnant women after the middle of the term of pregnancy are not given the quick treatment. The method is carried out as follows. (i) The patient's body is

rubbed for fifteen minutes with green soap and wood wool, chiefly by the patient himself. Special attention is given to the favourite sites of scabies. The head and scalp are not treated. (ii) The patient is put in a warm bath (30° C.) and is rubbed with green soap again, this time for half an hour, with a brush or wood wool. (iii) The patient is taken from the bath tub, dried carefully and smeared with a modification of the old Hardy ointment, which is a modification of the older Helmerich treatment. The areas of the burrows are rubbed especially carefully. The following is the prescription: precipitated sulphur, 25 grammes; potassium carbonate, 10 grammes; yellow petrolatum, 125 grammes. The hands are covered by gloves and the feet by socks, and the patient is rolled in a sheet and covered with a woollen blanket. (iv) After two hours the patient is put under a shower bath, where the ointment is removed by soaping with a common soap. He is dried carefully, and his entire body, except the head and neck, is smeared in zinc paste (30 grammes each of zinc oxide and purified talc and 60 grammes of yellow petrolatum). The entire treatment takes three hours. Moderate itching remains for a few days. During the treatment, shirts, underwear, socks, gloves and shoes are sterilized by hot air. It is possible to treat small children with this method if the time of application of green soap is shortened to five minutes or ten minutes and that of the sulphur-potassium ointment to a quarter of an hour. If the treatment is carried out properly, a poor result is almost impossible.

Familial Xanthomatosis.

J. C. SWANSON (*The British Journal of Dermatology and Syphilis*, December, 1943) states that since Addison and Gull (1857) described vitiligoidea, a variety of syndromes concerning the derangement of lipid metabolism have been described in which the deposition of cholesterol in the tissues has constituted the basic factor, and in which there has been a similar pathological picture. Histologically the lesions consist of connective tissue cells distended with lipid droplets (cholesterol esters) called foam cells, fibroblasts, lymphoid infiltration and foreign body giant cells, causing exophthalmos and retarded growth, whilst involvement of the pituitary produces *diabetes insipidus*; in addition, lesions of the cardiovascular system, kidneys, Fallopian tubes, gall-bladder, liver, spleen and choroid plexus have been described. Hypercholesterolemia is common, but not invariably present, and there is usually an increase in other blood lipids. Cutaneous lesions are divided into three types: (a) *xanthoma palpebrarum*, (b) *xanthoma tuberosum* and (c) *xanthoma diabeticoorum*, the last associated with *diabetes mellitus*. But sometimes the distinction is not very clear and it is not unusual to find two varieties together, as in the author's case. There are three main theories as to the pathology. According to the first there is a primary disturbance of lipid metabolism with secondary infiltration of the reticulo-endothelial system. The second presupposes a primary intracellular metabolic disturbance of the reticulo-endothelial system, as a result of which cholesterol

and other lipoids are synthesized and stored, this giving rise to the formation of foam cells. According to the third theory the condition is an inflammatory granuloma. The clinical picture differs according to where the pathological process is situated. Besides cutaneous lesions, involvement of the membrane bones of the skull gives rise to the Hand Schüller-Christian syndrome with pressure effects. The lesions of *xanthoma tuberosum* tend to occur on the extensor surfaces, and are described as varying in size from a pin head to the size of a walnut or larger. There may be a familial tendency either to the cutaneous lesions, or more commonly to a derangement of cholesterol metabolism giving rise to gall-stones and atheroma. The author describes a case in view of the remarkable size of the lesions and family history. He also surveys the literature. Some authors describe cases of sudden death due to xanthomatous lesions in the coronary arteries. Thannhauser and Magendanz (1938) divided xanthoma into *xanthoma tuberosum*, which included lesions of the skin, tendons, endocardium and intima of the arteries, liver and spleen, associated with a high blood cholesterol content; and *xanthoma disseminatum* with rather different small cutaneous lesions with generalized deposits in the bone marrow, lymph glands, spleen, and in the pituitary giving rise to *diabetes insipidus*. The author's case comes into the first group.

Mycosis Fungoides with Bullous Lesions.

J. GARB AND F. WISE (*Archives of Dermatology and Syphilology*, October, 1943) state that bullous and vesicular lesions are occasionally encountered as intrinsic elements in such symptoms as *lichen planus*, *leprosy* and (more rarely) *lupus erythematosus*. As a conspicuous manifestation of *mycosis fungoides*, they are extremely rare. Bullous and vesicular lesions sometimes become manifest as a result of interference with the circulation of lymph, giving rise to "wet" lesions of secondary nature, in contradistinction to the primary and essentially "dry" lesions. In the patient forming the subject of the authors' report, the bullous lesions not only appeared at the site of clinically normal skin, but arose for the most part from the midst of infiltrated nodules and plaques. Thus the eruption was mistaken for pemphigus by several experienced dermatologists. The evolution and involution of such bullous elements, starting from an infiltrated nodule or flat plaque, increasing from vesicle to bulla, bursting, forming an adherent crust and then regressing, was observed over a period of several months. They contained serum, not lymph. The authors review the literature and mention other authors who have reported bullous lesions in *mycosis fungoides*. In discussing treatment the authors state that they treated the patient and three others suffering from *mycosis fungoides* with injections of 2% sodium arsenate solution without benefit in regard to either relief of the itching or resolution of the lesions. Superficial X-ray treatment gave only temporary relief. Orchic extract was given simultaneously with diphtheria toxoid. This idea was based on the theory of the "spreading factor" advanced by Duran Reynals,

who found that testicular extracts greatly enhanced the lesions produced by intradermal inoculation of vaccine virus. The authors thought that the orchic extract might similarly enhance the antitoxic action of diphtheria toxoid. However, this extract was not given in sufficient quantities and for long enough to make possible an evaluation of its usefulness. Alum-precipitated diphtheria toxoid cleared up the lesions almost completely for several weeks, but the bullae later recurred. Testosterone propionate given at first in ten milligramme doses for twelve consecutive days produced noticeable improvement within a week. An unusual occurrence was the steady disappearance of numerous seborrhœic verrucae from which the patient was suffering on his back. The authors are now using this hormone experimentally for similar naevoid dermatoses.

UROLOGY.

Ureteritis.

D. M. MORISON (Edinburgh Medical Journal, November, 1943) states that ureteritis is a definite clinical entity, though the pathology and aetiology are still imperfectly understood. The author includes in this group, chronic ureteritis and ureterospasm. The chronic ureteritis group naturally includes ureteric stricture. The cases occur preponderantly in the female, and the lower end of the ureter is most frequently affected. Although ureteritis occurs in children, it is more prevalent in adults, with no predilection for any particular decade. In 147 personal cases reviewed, a course of ureteric dilatation, reinforced at times by short-wave diathermy, resulted in 70% of cures or definite improvement. Treatment was quite ineffective in 4.1% of cases.

Surgical Management of Acute Renal Infections.

J. DUFF, H. R. KENTON AND J. W. HAUSER (The Journal of Urology, August, 1943) have undertaken a study based on a survey of methods of handling fulminating infections of the upper urinary tract. In 100 cases studied, 35 patients showed gross and microscopic evidence of multiple cortical abscesses, and eight had a carbuncular type of lesion. It was usually impossible to distinguish between primary coccal infections of the cortex and the suppurative type of pyelonephritis; 46% of patients had calculi present; 48% showed evidence of infected hydronephritis, 20% evidence of acute pyelonephritis and 16% acute manifestations of pyonephrosis. A blood culture was obtained in only 12% of cases. The mortality rate was 10%. The two predominating groups were (a) those with suggestive evidence of cortical infection and (b) those with an obstructive uropathy, calculous or non-calculous, complicated by infection. Chemotherapy is of value only in the early stages of these acute infections. In advanced or unresponsive cases, open surgery is urgently needed. Review of the histories shows that all patients had persistent hyperpyrexia, 72% had localized pain, and 40% showed the clinical signs of cortical infection,

namely, marked tenderness and spasm on the affected side, with evidence of severe infection and profound toxæmia, while the urographic changes were minor. Leucocytosis was the rule, but the degree of leucocytosis was not a reliable guide to the severity of the infectious process. The urine could be clear, or more often show mixed infections, but occasionally pure coccal infections were present. The operative procedures undertaken were: nephrectomy, 42; decapsulation with nephrostomy, 18; enucleation of carbuncle, 8; incision and drainage of cortical abscesses, 4; nephrotomy, 18; pyelotomy, 12; pyelolithotomy, 12; ureterolithotomy, 12; ureterotomy, 4; ureteric catheter drainage, 28. The chief lesson learnt from the whole series was that the happiest results were achieved when operation was not delayed in toxic, fulminating cases.

Carcinoma of the Urinary Bladder.

A. JACOBS (The British Journal of Urology, September, 1943) reviews the results obtained by him in 93 cases of carcinoma of the bladder in which the patients were treated by means of radium needle or radon seed, implanted either suprapubically or cystoscopically. Deep X-ray therapy has proved disappointing, complete excision of the bladder is too heroic, and partial excision is suitable only for the very small proportion of such growths occurring in the upper half of the bladder. Therefore, for most malignant cases, the ideal treatment is electric excision of the tumour followed by interstitial radiation. Of the 93 patients discussed, eight died after operation and 25 died of the disease subsequently, the period of survival being under two years in 23 of the 26 cases. Eleven patients with the tumour uncontrolled are alive for periods of one to five years. Forty-one patients are alive and well, and the absence of any growth has been confirmed by cystoscopy in 31 of the patients. Thirteen of these 41 patients were operated on four to nine years ago; six are still alive and well.

Hæmoglobinuria and Traumatic Anuria.

W. A. D. ANDERSON (Urologic and Cutaneous Review, March, 1943) reviews the problem of renal injury in association with crushing injury of muscles, mismatched transfusions, blackwater fever and other severe forms of hæmoglobinuria. Blockage of tubular lumina by pigment casts is evidently not the sole cause of oliguria and anuria arising in these conditions. Alkalinization does not always prevent death from such types of renal damage. Methæmalbumin, and its precursor hæmatin, which are pigments derived from hæmoglobin under conditions of hæmolysis, may be toxic products capable of producing severe renal damage.

Hydronephrosis.

R. B. HENLINE AND S. H. MENNING (The Journal of Urology, July, 1943) believe that the diagnosis of ureteropelvic obstruction should be made by pyelography, but the actual cause of the obstruction is to be discovered only at operation. In their experience the

aberrant vessel frequently seen is not the primary cause of obstruction which is usually an intrinsic stenosis. At operation prolonged splinting of the site of plastic operation and prolonged nephrostomy are arranged. The tubes remain in position for six weeks, but the patient may be allowed home in a fortnight. The plastic procedure most commonly employed was the Schwytzer V-Y.

Surgical Treatment of Nephritis.

DECAPULATION of the kidney and denervation of the renal pedicle are advocated by C. L. O'Neill and I. D. Munoz (The Journal of Urology, July, 1943) for certain cases of nephritis. They state that the operation is innocuous and helpful in halting the progress of the disease in its acute form. Cases amenable to medical treatment should be excluded, but procrastination may lead to irreversible parenchymal changes. The most striking results are seen in the subacute form; therefore the operation should be done at the crucial moment before the disease becomes chronic. In sub-chronic cases the results are variable and in the chronic forms operation is indicated only in acute exacerbations and in the presence of pain or hæmaturia. In the vascular forms in which hypertension is the chief symptom operation should be undertaken before the majority of arterioles are obstructed.

Excretion Urography and Renal Function.

G. O. BAUMRUCKER (The Journal of Urology, September, 1943) points out that the specific gravity of the urine following injection of a contrast substance for excretion urography rises in proportion to the concentration of dye in the urine. The degree of visualization of the renal pelvis is directly proportioned to the rise in specific gravity. The amount and percentage of dye excreted may be calculated from the specific gravity of the urine before and after injection. Good contrast in excretion venous urography depends on bowel preparation, dehydration and concentration of the dye in the renal pelvis. This last factor is most satisfactory if the patient remains in 25° Trendelenburg position from the time of injection till the exposure is made.

Bactericidal Action of "Solution G".

THE stone-dissolving agent described by Suby, Suby and Allbright as "Solution G" has produced very favourable results in cases of incrustated cystitis due to radium reactions. H. R. Sauer and E. Neter (The Journal of Urology, August, 1943) have found that the solution is bactericidal within twenty-four to seventy-two hours against strains of *Escherichia coli*, *Bacillus proteus vulgaris*, *Proteus morganii* and *Streptococcus fecalis*. Admixture of urine to "Solution G" caused an increase in pH and decrease in bactericidal activity against *Escherichia coli*. "Solution G" exerted approximately the same bactericidal effect against *Escherichia coli* as a citric acid-sodium phosphate solution of identical pH (4.0). It is therefore concluded that the bactericidal activity of the solution is due to its acidity rather than to its ingredients.

British Medical Association News.

ANNUAL MEETING.

THE annual meeting of the New South Wales Branch of the British Medical Association was held at the Robert H. Todd Assembly Hall, British Medical Association House, 135, Macquarie Street, Sydney, on March 30, 1944, Dr. K. S. M. Brown, the President, in the chair.

ANNUAL REPORT OF THE COUNCIL.

On the motion of Dr. W. F. Simmons, seconded by Dr. A. M. Davidson, the annual report of the Council was received and adopted. The report is as follows.

The Council presents the following report on the work of the Branch for the year ended March 30, 1944.

Membership.

The membership of the Branch is now 2,096, as against 1,972 at the date of the last report. The additions have included 170 elections, reelections and resumptions, and 17 removals into the area of the Branch, while the losses have included 4 by resignation, 5 removals out of the area of the Branch, 27 by default in payment of subscription, and 27 by death. The losses by death were as follows: Dr. T. E. Parker, Dr. F. W. Doak, Dr. J. C. Hughes, Dr. W. F. D. la Touche, Captain B. F. Hindmarsh, Major L. L. Holland, Major G. R. Jones, Major I. H. Sender, Dr. H. T. Marsh, Dr. H. St. L. Moss, Dr. Winifred L. Dillon, Dr. J. G. Thompson, Dr. J. Pirie, Dr. P. G. Cooley, Dr. G. J. L. O'Neill, Dr. H. R. Beatty, Dr. J. Delepine, Dr. J. S. MacFarlane, Dr. R. Dick, Dr. C. W. Fowler, M.C., Dr. R. J. Millard, C.M.G., C.B.E., Dr. J. Harris, Dr. L. Cowlishaw, Captain A. E. H. Salter, Dr. S. M. O'Riordan, M.C., Dr. K. O. Jones and Dr. O. F. De Lacy.

Roll of Honour.

Died on Active Service.

Captain B. F. Hindmarsh, Major L. L. Holland, Major G. R. Jones, Major I. H. Sender, Captain A. E. H. Salter.

Meetings.

Ten ordinary meetings of the Branch (including the annual general meeting) and one extraordinary general meeting of the Branch and eight clinical meetings were held. The average attendance was 51. Four of the ordinary meetings were held in conjunction with meetings of special groups, namely: June 24, with the Section of Medicine, Section of Surgery, Section of Radiology and Section of Neurology, Psychiatry and Neurosurgery; August 26, with the Section of Medicine, Section of Paediatrics and Section of Radiology; September 30, with the Section of Surgery, Orthopaedic Group and Section of Pathology and Bacteriology; October 28, with the Section of Medicine. The clinical meetings were held at the Royal Alexandra Hospital for Children; Royal Prince Alfred Hospital; Royal North Shore Hospital; Women's Hospital, Crown Street; Lewisham Hospital; Sydney Hospital; Saint Vincent's Hospital; and Broughton Hall Psychiatric Clinic. The business of the meetings included thirteen papers, five addresses, numerous reports of cases, exhibits and demonstrations. On May 27 an ordinary meeting was held to discuss the Federal Council principles and policy for a general medical service for Australia. These were adopted with minor amendments. On December 9 an extraordinary general meeting was held to discuss the proposal by Council for an increase in the annual rates of subscription. As the requisite two-thirds majority was not obtained, the proposal was defeated. At the ordinary meeting on July 29, four medical officers from the 118th General Hospital (American) delivered addresses. At the ordinary meeting on December 9, Dr. Ralston Paterson, M.C., gave an address entitled "The Role of Radiation in Medicine". An invitation was extended to the fifth and sixth year medical students of the University of Sydney to attend ordinary meetings, and to sixth year medical students to attend clinical meetings of the Branch.

Representatives.

The Branch was represented as follows:

1. Council of the British Medical Association (1938-....): Professor R. J. A. Berry.
2. Federal Council of the British Medical Association in Australia. Dr. George Bell, O.B.E., Dr. W. F. Simmons.

3. Contract Practice Subcommittee of the Federal Council: Dr. H. R. R. Grieve.
4. Australasian Medical Publishing Company, Limited: Dr. T. W. Lipscomb, Dr. F. P. Sandes, Dr. A. M. Davidson, O.B.E.
5. New South Wales Post-Graduate Committee in Medicine: Dr. E. M. Fisher, Dr. A. C. Thomas.
6. Ophthalmic Association Limited: Dr. Colin C. Ross.
7. The Flying Doctor Service of Australia: Representative, Dr. George Bell, O.B.E.; Deputy Representative, Dr. J. G. Hunter.
8. Council of the Bush Nursing Association (1943-1944): Dr. K. S. M. Brown.
9. Board of Control of the Campaign against Tuberculosis: Lieutenant-Colonel A. S. Walker.
10. Metropolitan Hospitals Contribution Fund of New South Wales: Dr. P. L. Hipsley.
11. Saint John Ambulance Association: Dr. K. S. M. Brown.
12. Executive Committee of the Council for Mental Hygiene for New South Wales: Lieutenant-Colonel C. K. Parkinson.
13. Standards Association of Australia: Institutional Supplies Committee, Dr. S. W. G. Ratcliff.
14. Medical Officers' Relief Fund (Federal): Local Committee of Management for New South Wales, Dr. E. H. M. Stephen, Dr. A. M. Davidson, O.B.E., Dr. A. J. Collins, D.S.O., M.C.
15. Police Boys' Club: Dr. K. S. M. Brown.
16. Medical Appointments Advisory Committee (Hospitals Commission of New South Wales): Dr. W. Vickers, D.S.O.
17. Australian League of Nations Union—Refugee Emergency Council: Dr. E. P. Blashki.
18. Special Departmental Committee for the Investigation of Maternal Deaths: Dr. L. A. Day.
19. Recreation and Leadership Movement: Professor Harvey Sutton, Dr. W. C. McClelland.
20. Council of the Royal Society for the Welfare of Mothers and Babies: Sir Robert Wade, Dr. E. H. M. Stephen.
21. New South Wales State Medical Coordination Committee: Dr. A. J. Collins, D.S.O., M.C.
22. New South Wales Medical Board: Dr. J. R. Ryan.
23. The Free Library Movement: Dr. E. H. M. Stephen.
24. Workers' Educational Association: Dr. R. A. M. Allen, M.C.
25. New South Wales Institute of Hospital Almoners: Dr. W. Vickers, D.S.O.
26. Council of Education: Dr. A. J. Collins, D.S.O., M.C.
27. Department of Physical Education: (i) Physical Education Advisory Committee, Professor Harvey Sutton; (ii) Pre-School and Sub-Primary Committee, Dr. J. Hoets, Dr. D. G. R. Vickery.
28. New South Wales War Loans and War Savings Certificates Committee: Dr. A. J. Collins, D.S.O., M.C.
29. Overseas Children Citizens' Committee: Dr. J. G. Hunter.
30. New South Wales Public School Teachers' Federation: Dr. D. G. R. Vickery.
31. Society of Laboratory Technicians of Australasia: Dr. Jean Armytage.
32. Status and Conditions of Nursing Profession: Dr. H. R. R. Grieve.
33. New South Wales Society for Crippled Children: Dr. E. H. M. Stephen.
34. Medical Finance Limited, Board of Directors: Dr. F. Brown Craig, Dr. A. M. Davidson, O.B.E., Dr. A. C. Thomas, Dr. George Bell, O.B.E.
35. Housing Problem Committee, Institute of Engineers: Professor Harvey Sutton, Dr. Mary Puckey.
36. New South Wales Institute of Dietitians: Dr. E. W. Fairfax.

Council.

(a) The attendance of members of the Council and of the standing committees was as set out in the accompanying table.

(b) The representatives of the Local Associations of Members, appointed on the invitation of the Council to attend the regular quarterly meetings of the Council, were as follows: Dr. C. G. Bayliss (Canterbury-Bankstown), Dr. S. J. Woolnough (Central Western), Dr. N. E. McLaren (Eastern District), Dr. H. A. Ryan (Eastern Suburbs), Dr. G. F. Elliott (Illawarra Suburbs), Dr. G. L. Howe (Kuring-gai District), Dr. G. C. Halliday (Northern District),

Dr. A. L. Caselberg (South Eastern), Dr. C. H. Jaede (South Sydney), Dr. R. D. Mulvey, M.C. (Western), Dr. R. J. J. Speight (Western Suburbs).

Library.

Dr. G. C. Willcocks was appointed to the position of Honorary Librarian.

The following are the figures for the year:

Visitors to the library	2,898
Books lent to members	568
Journals lent to members	1,566
Books added to the library	96
Journals added to the library	5

All these figures are an increase on last year, and the number of books and journals forwarded on loan to country members has increased by 80 as compared with the 1942 figures. The work in the library has greatly increased owing to the many demands made on the librarian by members seeking information and references on various subjects.

It was decided to instal a microfilm reader in the library for the use of members, thereby providing a service which would widen the field of reference and make it possible to obtain microfilms of articles published in journals not included in the Branch library, and unavailable for loan from other libraries.

Donations of books and periodicals were received from the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, the Library of the Surgeon-General's Office, U.S.A., the Mayo Clinic Foundation, the British Empire Cancer Campaign, Free French Movement in Australia, Scientific Liaison Bureau, the United States Public Health Service, the National Health and Medical Research Council, the Royal College of Physicians, London, the Department of Labour and National Service, Mr. G. P. Whitley of the Council for Scientific and Industrial Research, Dr. E. P. Blashki, Mrs. F. W. Doak, Dr. G. Bell, Dr. A. M. Davidson, Dr. E. H. Stokes, Colonel A. M. McIntosh, Dr. K. S. M. Brown, Dr. W. S. Dawson, Dr. H. H. Schlunk, Dr. H. C. R. Darling, Dr. R. de C. Basto, Dr. C. E. Corlette, Dr. V. M. Coppleson, Dr. B. P. Anderson Stuart, Dr. J. McD. Gill, Dr. W. W. Ingram, the Section of Radiology, the Section of Obstetrics and Gynaecology, the Section of Medicine and the Section of Pathology and Bacteriology, and the Ophthalmological Society of Australia (British Medical Association).

Local Associations.

Permission was given for the formation of a local association to be known as Blue Mountains District Medical Association, whose boundaries would embrace the Blue Mountains Shire, Blaxland Shire and the municipalities of Katoomba, Blackheath and Lithgow.

Affiliated Local Associations of Members.

Border (affiliated 1908): *Chairman*, Dr. C. M. MacKnight; *Honorary Secretary*, Dr. L. S. Woods. Membership, 12. One meeting was held.

Broken Hill (affiliated 1942): *Chairman*, Dr. A. E. Panting; *Honorary Secretary*, Dr. B. P. Funder. Membership, 12. Fifteen meetings were held.

Canterbury-Bankstown (affiliated 1930): *Chairman*, Dr. J. R. Allison; *Honorary Secretary*, Dr. G. Russell. Membership, 29. Three meetings were held.

Central Northern (affiliated 1910): *Chairman*, Dr. A. C. Clark; *Honorary Secretary*, Dr. O. J. Ellis. Membership, 59. Two meetings were held.

Central Southern (affiliated 1909): *Honorary Secretary*, Dr. R. G. Woods.

Central Western (affiliated 1910): *Chairman*, Dr. M. O'Reilly; *Honorary Secretary*, Dr. K. S. M. Brown. Membership, 47. Four meetings were held.

Eastern District (affiliated 1913): *Chairman*, Dr. R. A. Rankine; *Honorary Secretary*, Dr. N. E. McLaren. Membership, 15. One meeting was held.

Eastern Suburbs (affiliated 1911): *Chairman*, Dr. R. B. Halliday; *Honorary Secretary*, Dr. B. W. Stevenson. Membership, 97. Three meetings were held.

Far South Coast and Tablelands (affiliated 1935): *Honorary Secretary*, Dr. L. W. Wing. Membership, 12. One meeting was held.

Illawarra Suburbs (affiliated 1913): *Chairman*, Dr. H. B. Cribb; *Honorary Secretary*, Dr. G. W. Ashby. Membership, 50. Nine meetings were held.

Kuring-gai District (affiliated 1929): *Honorary Secretary*, Dr. E. A. Cook. Two meetings were held.

North Eastern (affiliated 1913): *Honorary Secretary*, Dr. G. J. Rawle. Membership, 42. Two meetings were held.

Northern District (affiliated 1911): *Chairman*, Dr. R. G. Banks-Smith; *Honorary Secretary*, Dr. R. J. Jackson. Membership, 66. Two meetings were held.

South Eastern (affiliated 1914): *Chairman*, Dr. A. L. Caselberg; *Honorary Secretary*, Dr. D. A. Britten. Membership, 19. Three meetings were held.

Southern District (affiliated 1909): *Chairman*, Dr. N. F. Benjamin; *Honorary Secretary*, Dr. R. M. G. Holmes. Membership, 64. Two meetings were held.

South Sydney (affiliated 1909): *Chairman*, Dr. L. E. Hewitt; *Honorary Secretary*, Dr. C. H. Jaede. Membership, 28. Three meetings were held.

Warringah District (affiliated 1929): *Honorary Secretary*, Dr. E. L. Newman. Membership, 80. One meeting was held.

ATTENDANCE AT COUNCIL AND STANDING COMMITTEE MEETINGS.

	Council.	Committees.			
		Executive and Finance.	Organization and Science.	Medical Politics.	Ethics.
BARRON, G. M.	10	—	—	—	1
BELL, GEORGE	11	10	—	8	1
BLACKBURN, SIR CHARLES	8	—	—	—	2
BROWN, K. S. M.	11	12	2	13	2
COLLINS, A. J.	9	10	—	4	—
DAVIDSON, A. M.	9	6	—	—	—
DEY, L. A.	9	—	—	12	—
EDYE, B. T.	10	—	—	—	1
GREENAWAY, T. M.	8	—	2	3	—
GRIEVE, H. R. R.	10	—	—	8	—
HAMILTON, MARIE	10	—	—	12	—
HIPSLEY, P. L.	9	—	—	—	2
JEREMY, R.	10	—	2	—	—
MCINTOSH, A. M. ¹	4	3	—	—	—
SIMMONS, W. F.	11	11	—	12	—
THOMAS, A. C.	10	—	—	9	—
TIVY, E. A.	11	—	—	12	1
VICKERS, W.	7	5	—	—	—
WARD, H. K.	9	—	2	—	—
WILCOCKS, G. C.	8	10	2	12	2
Meetings held	11	12	2	13	2

¹ On military duty.

Western (affiliated 1908): *Chairman*, Dr. S. L. Cameron; *Honorary Secretary*, Dr. S. R. Dawes. Membership, 50.

Western Suburbs (affiliated 1908): *Honorary Secretary*, Dr. R. J. J. Speight.

Annual Meeting of Delegates.

The thirtieth annual meeting of delegates of the affiliated local associations of members with the Council was held on Friday, October 1, 1943.

The delegates present at the meeting were as follows: Border, Dr. R. A. Robertson; Broken Hill, Dr. A. E. Panting; Canterbury-Bankstown, Dr. H. A. McCredie; Central Northern, Dr. O. J. Ellis; Central Southern, Dr. R. G. Woods; Central Western, Dr. G. N. M. Aitkens; Eastern District, Dr. N. E. McLaren; Eastern Suburbs, Dr. J. P. Hardie; Illawarra Suburbs, Dr. G. F. Elliott; Kuring-gai District, Dr. G. L. Howe; Northern District, Dr. R. J. Jackson; South Eastern, Dr. A. L. Caselberg; Southern District, Dr. C. R. Sim; South Sydney, Dr. C. H. Jaede; Warringah District, Dr. A. A. Lang; Western, Dr. R. D. Mulvey.

Special Groups.

Permission was given for the formation of a Section of Sociological Medicine.

The objects and scope of this special group have been stated as follows:

"The aim of the group is to establish an open forum of members of the Association to enable the fullest discussion on all matters related to sociological medicine as it affects both doctor and patient." In regard to membership, "the only qualification contemplated is membership of the Association".

The Honorary Secretary is Dr. L. E. Hewitt, 10, Erskineville Road, Newtown.

Special Groups for the Study of Special Branches of Medical Knowledge.

Anæsthesia (inaugurated 1934): *Chairman*, Dr. C. N. Paton; *Honorary Secretary*, Dr. A. Distin Morgan. Four meetings were held.

Genito-Urinary and Venereal Diseases (inaugurated 1928).

Preventive Medicine (inaugurated 1922): *Chairman*, Dr. E. S. Morris; *Honorary Secretary*, Dr. J. Cooper Booth. One meeting was held.

Medical Literature and History (inaugurated 1925).

Medicine (inaugurated 1924): *Chairman*, Dr. E. H. Stokes; *Honorary Secretary*, Dr. W. L. Calov. Seven meetings were held, three in conjunction with meetings of the Branch.

Neurology, Psychiatry and Neurosurgery (inaugurated 1924): *Chairman*, Dr. G. Ewan; *Honorary Secretary*, Dr. C. Henry. Two meetings were held, one in conjunction with a meeting of the Branch.

Obstetrics and Gynecology (inaugurated 1925): *Chairman*, Professor B. T. Mayes; *Honorary Secretary*, Dr. M. Britnell Fraser. Four meetings were held.

Orthopedic Group (inaugurated 1923): *Chairman*, Dr. W. Vickers; *Honorary Secretary*, Dr. C. C. McKellar. Six meetings were held, one in conjunction with a meeting of the Branch.

Oto-Rhino-Laryngological Society (inaugurated 1924): *Chairman*, Dr. H. B. Harwood; *Honorary Secretary*, Dr. D. G. Carruthers. Three meetings were held.

Pædiatrics (inaugurated 1921): *Chairman*, Dr. H. G. Humphries; *Honorary Secretary*, Dr. Kathleen Winning. Three meetings were held, one in conjunction with a meeting of the Branch.

Pathology and Bacteriology (inaugurated 1924): Several meetings were held to discuss medico-political problems, and one meeting in conjunction with a meeting of the Branch.

Radiology (inaugurated 1926): *Honorary Secretary*, Dr. D. G. Maitland. Three meetings were held, two in conjunction with meetings of the Branch.

Surgery (inaugurated 1925): Two meetings were held in conjunction with meetings of the Branch.

Sociological Medicine (inaugurated 1944): *Honorary Secretary*, Dr. L. E. Hewitt.

Urology (inaugurated 1940): *Chairman*, Dr. J. W. S. Laidley; *Honorary Secretary*, Dr. K. L. H. Kirkland. Two meetings were held.

The Federal Council of the British Medical Association in Australia.

The Federal Council of the British Medical Association in Australia met in Melbourne on August 23, 24, 25 and 26, 1943, and on January 31 and February 1 and 2, 1944. Dr.

George Bell and Dr. W. F. Simmons attending as representatives of the Branch. The reports of these meetings were published in the issues of THE MEDICAL JOURNAL OF AUSTRALIA of October 2, 1943, and of March 11, 1944.

Department of Medical Sociology and Research.

The work of the department was continued as in the previous year, and is also being extended in two directions.

Medical talks in the "Highways to Health" series of the Australian Broadcasting Commission, given since the series began in July, 1940, now total 95. In addition, three further talks requested by the Commission, on the subject of "Health and Hygiene in the Home", were given. A feature of the talks during 1943 was a series of three on the venereal diseases.

The "Kitchen Front" daily talks on nutrition and food preparation are considered to have a large audience, and the Broadcasting Commission desires to continue them for an indefinite period. The feature has been included in the programmes since March, 1942, and over 600 talks have been given.

At the request of the Director of the University Tutorial Classes, a series of lectures on sociological medicine will be prepared by the department for the use of "discussion groups". Some of these groups have been formed in sections of the National Emergency Services. It has been suggested that the army education authorities, who cooperate with the University Tutorial Classes, might also make use of the lectures.

The first of a projected series of short studies of subjects of sociological interest was prepared by the department and was published in THE MEDICAL JOURNAL OF AUSTRALIA of December 11, 1943.

During the year assistance was given to the Press on various occasions in obtaining comments on medical news and in checking cabled and other articles before publication.

It is interesting to note that the policy followed in preparation of the "Highways to Health" broadcasts, of aiming at a high quality of material and presentation, seems to be endorsed by the authors of a recent study of radio medical broadcasting in the United States. This study was made under the supervision of the New York Academy of Medicine.

Six short articles were contributed to the annual booklet published by the Health Week Association of New South Wales.

It has been proposed that the department shall assist in the work of popular education which will be required for the New South Wales Cancer Institute.

War Emergency.

Locum Tenentes Fees.

Following representations made in regard to the fees of locum tenentes, the Federal Council agreed that the amount payable during wartime should be £12 12s to £14 14s. per week. A standing notice to this effect has been inserted in the monthly notice to members.

Rationing of Linen for Use in Surgeries.

A committee has been appointed to assist the Deputy Director, Rationing Commission, in the rationing of linen to members of the profession for use in their surgeries.

Allied Works Council: Remuneration for Examination of Recruits.

Representations were made to the Allied Works Council in regard to the remuneration payable for examination of recruits for the Civil Construction Corps.

The remuneration payable was £2 2s. per session for each of the first three sessions per week, and £1 1s. for each other session in a week with a maximum of £12 12s. per week. Evening sessions were payable at the rate of £2 2s. per session, but not subject to the maximum amount of £12 12s. A session constituted approximately three hours in the morning, or three hours in the afternoon, evening sessions being from two to three hours.

As a result of the representations, the Allied Works Council agreed to a fee of £2 2s. per session.

Rehabilitation of Medical Officers of the Armed Forces.

With a view to obtaining information as to the manner in which medical officers of the armed forces could be absorbed into private practice, local associations have been requested to make surveys of the medical manpower requirements of their districts.

Manpower: Domestic Help.

In view of information supplied by a large number of members that they were without domestic help, the Deputy Director-General of Manpower was approached with a view to having steps taken to alleviate the position. Permission was given by him for all medical practitioners to advertise in the Press for domestic help.

Medical Planning.

Much attention has been given by the Council to this most important subject.

At the request of the Federal Council a Branch Medical Planning Committee was appointed with the object of furnishing a full and comprehensive report to the Planning Committee of the Federal Council. The committee has invited local associations to submit their views on various aspects of medical planning—group practice, rehabilitation of medical officers of the armed services, merits and demerits of present-day practice, free choice of doctor *et cetera*.

At a general meeting held on May 27, 1943, the general principles that should govern a medical service as laid down by the Federal Council, and the policy of that body in regard to the future of medical services, were, with minor suggested amendments, approved.

The action taken by the Federal Council in regard to the Pharmaceutical Benefits Bill has received the full endorsement of the Council.

Contract Medical Practice.**Friendly Society Lodge.**

For good and sufficient reasons, such as ill health and overwork, some lodge medical officers have been compelled to close their lodge lists. In order to assist the friendly societies affected by such closure of lists, the Council has secured the cooperation of the local associations in arranging for the placing of the names of lodge members supplied by the societies on the lists of other medical officers.

A Conference on Contract Medical Practice.

At the request of the Friendly Societies Association, a conference was held between representatives of that body and the Council to discuss certain suggestions made by the Friendly Societies Association in regard to the provision of medical services on a contract basis.

Briefly these suggestions were:

(i) The substitution of the present service on a capitation fee basis by one on a fee-per-service basis, for which there would be established a common pool into which all contributions would be paid, and from which the medical practitioners undertaking the service would be remunerated on a "points value" basis. It was considered that the experience gained over the first two years would finally enable a determination of the value of a service to be made. In this respect, however, the Friendly Societies Association pointed out that the amount of money paid into the pool would be identical with that paid to the profession at the present time in the form of capitation fees. Further, if at the end of two years the contribution rate was found to be inadequate, no guarantee could be given that it would be increased.

The Council informed the Friendly Societies Association that it did not consider any advantage would accrue from the suggested scheme.

(ii) The establishment of a friendly society clinic to provide X-ray, pathological and cardiographic facilities.

This matter has been referred to the special groups concerned.

Establishment of a Cancer Institute.

During the past year the Government made an announcement of its intention to establish a cancer institute to serve the whole of New South Wales. To this end it had invited Dr. Ralston Paterson, Director, Holt Institute, Manchester, who was accompanied by Dr. Edith Paterson, to give expert advice on the matter. At the invitation of the Minister for Health, a committee of members, whose professional activities were closely associated with the treatment of cancer, was nominated by Council to assist the Government and Dr. Ralston Paterson in the work involved.

The Minister for Health has expressed his appreciation to Council of the work carried out by this committee.

During their stay in Sydney Dr. Ralston Paterson and Dr. Edith Paterson were entertained by the Council.

Prenatal Care of Indigent Patients.

At the annual (1942) meeting of delegates of local associations with Council a request was made that a report should be drawn up by Council in regard to the establishment of prenatal clinics for indigent maternity cases. This report is as follows:

1. That Council approves of the establishment of prenatal clinics for indigent maternity cases.

2. That clinics be established as follows:

(a) Metropolitan Areas—

(i) At those public hospitals where maternity services are available.

(ii) Special clinics in populous metropolitan areas where no public hospital maternity services are available within a reasonable distance of the patients' homes.

(b) Country Areas—

(i) Town where the hospital provides maternity services. The clinic to be established at the hospital.

(ii) Town where the hospital does not provide maternity services. A prenatal clinic should not be established until and unless the practitioners in the district have expressed their unwillingness through the Association to provide prenatal care.

(iii) Outlying and small towns. No special action is necessary.

3. (a) *Staffing.*—It is desirable that the medical practitioner undertaking the care of the patient in her confinement should as far as possible carry out the prenatal care.

(b) It is desirable that a senior practitioner, or a practitioner with special qualifications in obstetrics, rather than a resident medical officer, should undertake prenatal care.

4. *Payment.*—Payment should be at a minimum fee of £2 2s. per session of not more than two hours.

World Status of Professional Women.

The Universities Commission advised that the British Federation of Business and Professional Women had set up a Committee on World Status of Professional Women to consider the status of professional women and such measures as should be taken after the war to ensure equality of professional status between men and women throughout the world, and to ensure as far as possible uniformity of professional standards in various countries. The Association's comments were sought.

A reply was sent stating that medical women should enjoy a professional status in medical work equal to that of medical men, with equal conditions of service in both public hospitals and the Public Service.

Resident Medical Officers: Conditions of Service.

The inadequacy of the salaries of resident medical officers was brought to the notice of the boards of public hospitals.

At a meeting of representatives of the Royal Prince Alfred Hospital, Sydney Hospital, Saint Vincent's Hospital, the University Medical Society, the Students' Representative Council and the Association it was decided to forward the following recommendations to teaching hospitals.

(a) That the salary of each junior resident medical officer be increased to £208 per annum.

(b) That the salary of each senior resident medical officer be increased by a proportion similar to the proportion of increase of junior resident medical officers (that is, 33½%).

(c) That not more than one resident medical officer be accommodated in a bedroom.

The recommendations have been generally agreed upon, but in regard to (a) and (b) it will be necessary, under National Security Regulations, for an application for permission to increase the salary to be made to the court by the employers, that is, hospital boards.

Status and Conditions of the Nursing Profession.

The invitation of the Minister for Health to nominate a member to represent the Association on a committee to report on methods by which the status and conditions of work of the nursing profession might be improved was accepted and Dr. H. R. R. Grieve appointed as the representative.

British Medical Agency of New South Wales Limited.

The annual general meeting of the members of the British Medical Agency of New South Wales was held on October 5, 1943.

The chairman, Dr. A. M. Davidson, presented the annual report on the operations of the company for the year ended June 30, 1943, and pointed out that as was to be expected by reason of the war, the year's result showed a considerable decline of income as compared with previous years. This decline, however, had been offset by an equal reduction in expenditure, with the result that the profit earned for the year was only very slightly below that for the year 1942.

Owing to the much smaller field of operations for securing life assurance business, and to the restrictions imposed by lack of manpower on the transfer of practices, supplying of *locum tenentes*, assistants *et cetera*, the company had to rely largely on holding the general commissions earned on business initiated in previous years. Accordingly, it was not possible at the moment to forecast any great increase on present income.

The expenditure had been cut to bare essentials, and it was not likely that any further reduction could be made.

However, it was considered that in spite of difficulties the company should be able to show a moderate surplus over working expenses in the coming year without taking into account any commissions that might be earned on sales of practices.

In the meantime it was the aim of the agency to give inquirers such service as was within its power in any direction whatsoever, and it was hoped this would bear fruit in the post-war years.

Medical Finance Limited.

The annual general meeting of the members of Medical Finance Limited was held on October 5, 1943.

The chairman, Dr. A. M. Davidson, said he was pleased, under the circumstances, to be able to report that the balance sheet covering the sixth year of business, ending June 30, 1943, resulted in a net profit. After placing £250 to reserve against possible bad debts, the balance had been transferred against losses incurred in previous years.

The war had, for the time being, practically closed any avenues for advance by the company, and no new loans had been made during the year. Most of the existing loans were being steadily paid off in accordance with the terms that were granted. In a few cases some extension of time might be necessary in view of the incidence of taxation or on account of the borrower being on war service.

The directors felt that the company would be able to fill an important place in post-war adjustments, and expected that in due time its facilities would be available up to the limit of its powers.

There being no other nominations, the retiring directors, Dr. W. F. Simmons and Dr. Richmond Jeremy, were duly elected for the ensuing year.

Premises Revenue Account.

The premises revenue account discloses a net surplus of £702 0s. 5d., as against a net surplus of £792 11s. 6d. for the year ended December 31, 1942, thus showing a decrease of £90 11s. 1d. in the net surplus revenue earned. This decrease is accounted for by a net decrease in income of £153 and a net decrease in expenditure of £62, as set out in detail on the accompanying comparative statement.

A comparison of the annual percentages of expenditure to rent revenue from the time of opening the building in 1930 up to December 31, 1943, is as follows:

	Percentage of Expenses to Revenue.	Percentage of Result to Revenue.
1 year to December 31, 1930 ..	119.4%	Deficiency 19.4%
1 year to December 31, 1931 ..	114.8%	Deficiency 14.8%
1 year to December 31, 1932 ..	109.8%	Deficiency 9.8%
1 year to December 31, 1933 ..	97.9%	Surplus 2.1%
1 year to December 31, 1934 ..	77.7%	Surplus 22.3%
1 year to December 31, 1935 ..	102.1%	Deficiency 2.1%
(including depreciation)		
1 year to December 31, 1936 ..	89.0%	Surplus 11.0%
(including depreciation)		
1 year to December 31, 1937 ..	82.7%	Surplus 17.3%
(including depreciation)		
1 year to December 31, 1938 ..	78.6%	Surplus 21.4%
(including depreciation)		
1 year to December 31, 1939 ..	80.6%	Surplus 19.4%
(including depreciation and provision for doubtful debts)		
1 year to December 31, 1940 ..	81.9%	Surplus 18.1%
(including depreciation and provision for taxation)		
1 year to December 31, 1941 ..	89.5%	Surplus 10.5%
(including depreciation and provision for taxation)		
1 year to December 31, 1942 ..	95.1%	Surplus 4.9%
(including depreciation and provision for taxation)		
1 year to December 31, 1943 ..	95.6%	Surplus 4.4%

The percentages of rent revenue, expenses and depreciation and the percentage of net surplus for the year to the capital value of the land and building (British Medical Association House), as shown by the books at December 31, 1943, namely, £161,248 11s. 3d., with the previous year's percentages in parentheses, are as follows:

	1943.
Rent Revenue (including amount charged for British Medical Association Branch Offices <i>et cetera</i>) ..	9.97% (9.77%)
Sundry Expenses, Interest and Provision for Painting Building ..	7.79% (7.60%)
Depreciation of Building ..	1.74% (1.69%)
	9.53%
Net Surplus for Year ..	0.44% (0.48%)

BRANCH ACCOUNT.**Income and Expenditure Account for the Year ended December 31, 1943.**

December 31, 1943.	£	s.	d.	£	s.	d.	December 31, 1943.	£	s.	d.	£	s.	d.
To Salaries ..	3,235	9	11				By Subscriptions Received—						
.. Rent—Offices <i>et cetera</i> ..	1,000	0	0				1943 ..	9,712	5	3			
.. Printing and Stationery ..	324	11	5				1942 ..	272	0	0			
.. Stamps and Telegrams ..	238	14	1				Previous Years ..	51	9	0			
.. Telephones ..	154	12	8								10,035	14	3
.. Code Address ..	2	4	6				Less Proportion due to—						
.. Typewriter Repairs ..	61	2	6				British Medical Association ..	2,579	6	4			
.. Travelling Expenses ..	8	2	0				THE MEDICAL JOURNAL OF						
.. Insurance ..	14	13	1				AUSTRALIA ..	1,746	15	0			
.. Exchange and Bank Charges ..	11	0	10								4,326	1	4
.. Refreshments—Meetings ..	17	4	7										
.. Newspapers ..	6	4	5								5,709	12	11
.. Sundry Petty Expenses ..	30	2	9				.. Interest ..	178	11	7			
.. Gratuity ..	60	0	0				.. Rent—Assembly Hall ..	76	18	0			
.. Tea Money ..	29	11	3				.. Broadcasting Fees ..	193	4	0			
.. Federal Council ..	593	14	0				.. Sales—C.F.A. <i>et cetera</i> ..	1	19	0			
.. Report <i>et cetera</i> vs Convention ..	69	4	0								450	12	7
.. Pay-Roll Tax ..	61	3	7										
				5,918	0	7							
.. Allowance for Depreciation of—													
Library ..	129	18	2										
Office Furniture and Equipment ..	50	18	6										
						190	16	8					
.. Balance, being Surplus for the year ended December 31, 1943, transferred to Accumulated Funds Account ..						51	8	3					
						£6,160	5	6					
											£6,160	5	6

NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

Balance Sheet as at December 31, 1943.

FIXED LIABILITIES.				FIXED ASSETS.			
	£	s.	d.		£	s.	d.
Debentures—				Land and Building, British Medical Association House—at Cost less Depreciation on Building ..	161,248	11	3
88 4% Series "A" at £10 each ..	880	0	0	Library—at Valuation less Depreciation ..	1,511	10	11
389 4-65% Series "B" at £50 each ..	19,450	0	0	Office Furniture and Equipment—at Valuation less Depreciation ..	629	16	1
211 4-65% Series "C" at £10 each ..	2,110	0	0	Debentures in other Companies—Australasian Medical Publishing Company, Limited (face value)	100	0	0
	22,440	0	0	Commonwealth Treasury Bonds (face value) ..	6,000	0	0
Less Amount Unpaid ..	54	0	0		169,489	18	3
	22,386	0	0				
Australian Mutual Provident Society (Secured by Mortgage over Property, British Medical Association House) ..	65,000	0	0				
			87,386				
			0				
			0				
CURRENT LIABILITIES.				FLOATING ASSETS.			
Sundry Creditors ..	336	13	9	Sundry Debtors (after making provision for doubtful debts)—Sundry Tenants, Rent <i>et cetera</i> ..	1,760	10	6
Interest Accrued on Mortgage ..	243	15	0	Cash on Hand ..	5	6	9
Deposit at Call ..	700	0	0	Commercial Banking Company of Sydney Limited—Premises and Branch Current Accounts ..	52	7	5
			1,280		1,818	4	8
			8				
			9				
OTHER CREDIT BALANCES.				OTHER DEBIT BALANCES.			
Subscriptions Paid in Advance ..	129	1	9	Prepaid Insurance, Rates <i>et cetera</i> ..	664	15	3
Provision for Taxation ..	1,826	15	10				
Provision for Painting of Building ..	871	0	0				
			2,826				
			17				
			7				
ACCUMULATED FUNDS.							
Balance at December 31, 1942 ..	79,726	3	2				
Add Surplus for year ended December 31, 1943—							
Branch Account ..	51	8	3				
Premises Account ..	702	0	5				
	753	8	8				
			80,479				
			11				
			10				
			171,972				
			18				
			2				

Sydney, February 17, 1944.

We have examined the foregoing Balance Sheet with the Books of Account of the New South Wales Branch of the British Medical Association, and, having obtained all the information and explanations we have required, we are of the opinion that such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the State of the Company's affairs according to the best of our information and the explanations given to us and as shown by the Books of the Company. In our opinion the Register of Members and other records which the Company is required to keep by the New South Wales Companies Act, 1936, or by its Articles have been properly kept.

London Fank Chambers,
18-20 Martin Place, Sydney.

K. S. M. BROWN, President.
GEORGE BELL, Hon. Treasurer.
R. J. STIFFE, Financial Secretary.

F. W. DUESBURY & Co.,
Chartered Accountants (Aust.).

Financial Statement.

The Council has pleasure in presenting to members the balance sheet and accounts in respect of the financial year which terminated on December 31, 1943.

The net surplus of revenue over expenditure for the year amounted to £753 8s. 8d. after making provision for all known expenses.

The sum of £2,994 2s. 8d. has been written off for depreciation of the building (British Medical Association House), plant, office furniture and equipment, and the library.

A sum of £200 has been provided out of the current year's revenue to create a reserve for painting the exterior of the building. This amount for the time being is used in the business of the Association.

Dr. George Bell moved that the balance sheet, the statement of receipts and expenditure and the premises account be received. The motion was seconded by Dr. W. F. Simmons. Dr. Simmons also seconded the motion that the statements be adopted. Both motions were carried.

ELECTION OF OFFICE-BEARERS.

Dr. K. S. M. Brown announced that the following had been elected members of the Council for the ensuing year: Dr. George Barron, Dr. George Bell, Sir Charles Blackburn, Dr. A. J. Collins, Dr. A. M. Davidson, Dr. L. A. Dey, Dr. B. T. Edye, Dr. H. R. R. Grieve, Dr. Marie Hamilton, Dr. P. L. Hipsley, Dr. R. Jeremy, Dr. A. M. McIntosh, Dr. J. K. Maddox, Dr. K. S. Parker, Dr. W. F. Simmons, Dr. A. C. Thomas, Dr. E. A. Tivey, Professor H. K. Ward.

Messrs. F. W. Duesbury and Company were appointed auditors for the ensuing year.

INCOMING PRESIDENT'S ADDRESS.

Dr. G. C. Willcocks delivered his address (see page 405). At the conclusion of the address Dr. B. T. Edye moved a vote of thanks to Dr. Willcocks for his address. Dr. H. R. R. Grieve seconded the vote of thanks which was carried by acclamation.

INDUCTION OF PRESIDENT.

Dr. K. S. M. Brown inducted the President for the year 1944-1945 (Dr. G. C. Willcocks). Dr. Willcocks thanked the members for his election.

Medical Societies.

MELBOURNE PÆDIATRIC SOCIETY.

A MEETING of the Melbourne Paediatric Society was held on October 13, 1943, at the Children's Hospital, Carlton, Melbourne, Dr. HOWARD BOYD GRAHAM, the acting President, in the chair. Part of this report was published in the issue of April 22, 1944.

Osteomyelitis and Gas Gangrene.

DR. BRUCE HALLOWS showed a boy, aged eight years, who seven months previously had been attacked by four greyhounds and sustained severe multiple lacerations of the right arm and forearm and of both legs. Examination at that time revealed a moderate degree of shock; the laceration of the right arm involved the extensor origins, both muscles and tendons being exposed. On the right leg, the laceration

on the side was extensive, and the *fascia lata* was exposed. A large, ragged laceration was present over the anterior aspect of the lower third of the leg. All the lacerations were dirty and were filled with tar and filth. Before operation routine anti-shock treatment was given; one-twelfth of a grain of morphine was given and 1,000 units of antitetanic serum were injected. At operation the wounds were all cleaned as well as possible. Dead muscle was excised, and minimal portions of damaged skin were removed. The wounds were all packed with sulphapyridine powder and the edges loosely sutured. At this stage 10,000 units of gas-gangrene antiserum were administered. Two days after his admission to hospital the condition of the patient became much worse. Toxaemia was severe, the pulse rate was rapid and hyperpyrexia was present. The wounds were inspected, and all were found to be infected with gas gangrene. *Bacillus welchii* was grown from the wounds. All sutures were removed and the wounds were irrigated with eusol and saline solution. A transfusion of 21 ounces of blood was given, 40,000 units of gas-gangrene antiserum were given intravenously every day, and sulphanilamide ("M & B 125") was given in doses of one gramme every four hours. Fifteen days after his admission to hospital the patient received another transfusion of twenty ounces of blood. Three days later his condition was considerably improved, and examination of smears from all the wounds gave negative results. At this time foot drop on the left side was noticed, and also right wrist drop. Treatment was instituted and complete recovery took place. Unfortunately osteomyelitis of the right radius developed, and X-ray examination revealed a large sequestrum within a thick involucrum from which there were three sinuses. Dr. Hallows said that the problem was, what was to be done about the osteomyelitis. He was nervous of interfering in the presence of potential *Bacillus welchii* infection, and he asked for suggestions to reduce the danger of reinfection. Dr. McComas had reminded him that Professor McMurray, of Liverpool, had suggested provocative massage and increased activity in cases of potential gas-gangrene infection, in order to assess the risk involved in any proposed operative procedure. Dr. Hallows thought that sequestrectomy should be performed. He proposed to give the child a course of deep X-ray therapy for fourteen days prior to the operation. A further precautionary measure would be to allow free movement and to note if there was any recrudescence. If no reaction occurred to this procedure, sequestrectomy should be reasonably safe and justifiable.

Dr. H. DOUGLAS STEPHENS said that two interesting points arose out of the case. The first was the treatment of the sequestrum in the radius. If the child was allowed free use of the arm, and if this measure produced no rise in temperature or symptoms, it would be safe to remove the sequestrum. Secondly, Dr. Stephens asked to what extent gas-gangrene antiserum should be used in compound fractures. It was very expensive, and its use was not always justified. Dr. Stephens recalled the case of a child who sustained a fracture of both bones of the forearm and a tiny wound over the ulna where the skin was penetrated. This was cleaned antiseptically on both dorsal and volar surfaces. On the third day gangrene appeared in the hand and was spreading up to the shoulder. The child was given 40,000 units of serum per day, 450,000 units being administered altogether. The arm had to be amputated on the fourth day. Recovery ensued. It had been said that the doctor in charge did not treat the patient properly. Dr. Stephens said he would appreciate an expression of opinion as to whether the procedure carried out was justifiable. Frequently, he said, such wounds were cleaned up without further trouble. Dr. Stephens said he used serum in crush fractures and in the presence of dirty wounds.

Dr. Hallows, in reply, said that the procedure was not so risky as he had anticipated. The lesion had been present for seven months, and so must be quiescent. He proposed to perform sequestrectomy and hope for the best.

Non-Parasitic Cysts of the Liver.

Dr. REGINALD WEBSTER said that the first specimen which he proposed to discuss was a cyst, which had been removed operatively by Dr. Eric Price from the liver of a boy, aged nine years. The boy had presented himself at the hospital in June, 1943, and exhibited a palpable, rounded tumour in the epigastrium, which appeared to occasion him no great disability. The most obvious clinical diagnosis was that of hydatid disease; but this was not supported by the results of the Casati intradermal test and the complement fixation test. Exploratory operation revealed a large cystic tumour arising from the inferior surface of the left lobe of the

liver. Fluid aspirated from the cyst was sent for immediate examination, and a search directed towards the detection of scolices, hooklets and fragments of hydatid membrane was barren of result. Dr. Webster noted that the fluid was purulent, but he was unable to demonstrate the presence of amoebae or any pyogenic bacteria. The operation notes described the cyst as projecting from the left lobe of the liver; it was successfully removed, and in due course reached the pathological department for examination. He had reported to the effect that the specimen was a large, stout-walled cyst, subdivided by a thick fibrous septum into two main chambers. Subsidiary cysts were present in the wall, and many more were evident in microscopic sections. The lining of low columnar epithelium of the intramural cysts suggested an origin from the biliary system.

Dr. Webster showed a second specimen of a hepatic cyst, which had been secured at autopsy on the body of a child, aged four years, who had first become ill at the end of March, 1943. She was admitted to another hospital on April 13, jaundiced and febrile, having been ill for two weeks. Prompt defervescence and the concurrent fading of the icterus seemed to warrant the diagnosis of catarrhal jaundice, and the little girl was discharged from hospital at the end of one week. She was readmitted to the other hospital on June 28, on account of recurrent jaundice of three weeks' duration. Her temperature at that time was 104° F., and the leucocytes numbered 36,000 per cubic millimetre. The Van den Bergh test applied to the blood serum produced the "immediate direct" type of reaction. Laparotomy was performed on July 8, and it was observed that the gall-bladder, though full, could be emptied readily by pressure. Aspirated bile yielded no growth on attempted cultivation, and thereafter apparently normal bile, as much as 180 cubic centimetres *per diem*, drained from a cholecystostomy opening.

The child was referred to the Children's Hospital on August 20 by Dr. H. Douglas Stephens. She was then very ill; the number of leucocytes reached the high figure of 76,900 per cubic millimetre, and a deep degree of jaundice and a sustained high temperature were conspicuous clinical features. During the six weeks that the patient remained in the Children's Hospital the biliary fistula closed, but at no time during this period did her condition, considered in relation to the negative findings attending further investigations, warrant operative intervention. She died on September 20, emaciated, cachectic and deeply jaundiced.

In detailing the autopsy findings, Dr. Webster said that the liver was observed to be much enlarged and to exhibit the deep olive-green colour induced in the hepatic parenchyma by prolonged biliary obstruction. The gall-bladder contained mucoid material in which no bile pigment was apparent. Emerging from the inferior surface of the right lobe of the liver, and so situated as to impinge upon and stretch the free edge of the gastro-hepatic omentum, was a tense cyst, comparable in respect of both size and shape with a tennis ball. The cyst, the presence of which provided an abundantly adequate explanation of the obstructive jaundice, was found to arise within the substance of the right lobe of the liver, although it was not deeply imbedded. Contrary to the impression gained by first inspection, the cyst was multilocular; its fluid content was frankly purulent. The prolonged stasis within the biliary system resulting from the occlusion of the common bile duct had terminated in the infection always to be feared in such circumstances, and throughout the liver were to be seen the multiple foci and channels of suppuration of septic cholangitis. In microscopic sections of the cyst wall the appearances were those of acinous spaces of varying size supported by a connective tissue framework, which displayed evidence of recent inflammatory reaction. The acini were lined by a low columnar epithelium, which occasionally exhibited a tendency to intracystic epithelial growth. Altogether, the impression of cystadenoma conveyed by the histological structure was very strong.

In commenting upon the specimens, Dr. Webster said that it was remarkable that in a now lengthening experience in the pathological department of the Children's Hospital, he should not have seen the condition of solitary, non-parasitic cyst of the liver until recent months, and that two examples should have come under his notice in a short period. Actually, most of the recorded cases, in number approximately 400, had been reported as occurring in children. The term "cystic disease of the liver", hydatid cysts excluded, probably conveyed to most people a polycystic state of the liver, as likely as not associated with a similar condition of the kidneys. He presented the two cysts under discussion as solitary, non-parasitic cysts, and he thought there was little doubt that they were congenital in nature and of biliary

origin. He considered the view that such cysts represented benign cystic adenomata arising from congenitally aberrant bile ducts to be the most attractive explanation of their pathogenesis. The solitary non-parasitic hepatic cyst was situated most commonly in the right lobe of the liver, although it might occur anywhere within the hepatic parenchyma or even in the round ligament. Such cysts were described as of variable size and prone to attain large dimensions. They might be wholly or partially intrahepatic, or even pedunculated. Both the examples which he had placed on view were only partially intra hepatic. That from the child in the care of Dr. Eric Price had permitted of successful resection. A similar happy result had attended the enucleation of a simple cyst of the liver by Dr. Eric Fisher, in the case of a woman brought before the New South Wales Branch of the British Medical Association by Dr. N. C. Cunningham, and reported in *THE MEDICAL JOURNAL OF AUSTRALIA* of August 7, 1943, at page 118.

Correspondence.

MENINGITIS DUE TO *HÆMOPHILUS INFLUENZÆ*.

SIR: I read with much interest Dr. A. G. Nicholson's review of recent advances in the treatment of meningitis due to *Hæmophilus influenzae* in your issue of April 8 last. I should like to contribute to his series by the brief mention of a recent case of my own in which sulphathiazole was the drug used, and in which the recovery made by the patient was rather unexpectedly rapid.

P.M., a female child of three years, developed a high fever on March 18, 1944, with a respiration rate of 48 per minute, a slight cough and signs of diminished air entry at the right base. As the child was very sick and had been vomiting, and as there appeared to be the possibility of a mixed bacterial invasion, I ordered four-hourly doses of 0.5 gramme of sulphathiazole to be given. On the morning of the second day she developed a head retraction; lumbar puncture revealed turbid cerebro-spinal fluid in which were grossly macroscopic flakes of exudate. Microscopically there was a heavy leucocytosis and indeterminate Gram-negative bacilli; the specimen was flown to Melbourne, where it was kindly cultured by Dr. Hilda Gardner, who reported *Hæmophilus influenzae*.

The dose of sulphathiazole was increased to one gramme, given every four hours until the tenth day, after which it was gradually reduced until the twentieth day, when the drug was discontinued, a total dose of 68 grammes having been given.

In the first week head retraction became extreme, together with other classical signs of meningeal irritation. There was a very marked *herpes labialis*. Intravenous medication and infusion were not carried out, however, as improvement soon followed oral administration of sulphathiazole. Recovery was uneventful. The patient's temperature was not elevated after the fifteenth day, and on the twenty-first day she was discharged from hospital, well in all respects, and has remained so since.

It would seem that the most favourable factor in this case was the patient's age. Degree of bacterial invasion in any given case is very hard to assess, as are also any possible advantages of sulphathiazole over other sulphonamides. It may be, too, that the exhibition of sulphonamides from the day of onset played a part in this instance.

Yours, etc.,
RÖNALD V. PRATT.

Balranald,
New South Wales,
April 12, 1944.

THE TONGUE IN MEDICAL DIAGNOSIS.

SIR: Dr. Douglas Anderson, in his very informative article on the tongue in medical diagnosis (*THE MEDICAL JOURNAL OF AUSTRALIA*, April 8, 1944, page 309), asks why the secretion of saliva should be inhibited. Apart from certain nervous causes I think a focus of infection is the simplest cause. Some physiological experiments which I published in *THE MEDICAL JOURNAL OF AUSTRALIA*, March 5, 1918, on the effects of injection of filtered extracts of various decomposed tissues, such as liver, spleen and placenta, illustrate this. In the experimental dog a copious flow of saliva was induced by intravenous injection of pilocarpine. Injection of one of

the solutions of tissue bacterial decomposition products then inhibited the flow of saliva (as well as tears), so that the mouth (and eyes) were dry and there was no flow of saliva (or tears).

Yours, etc.,
J. LEON JONA.

Melbourne,
April 18, 1944.

THE COST OF AN HONORARY SYSTEM.

SIR: In *THE MEDICAL JOURNAL OF AUSTRALIA* of April 19, page 248, I read: "... the abolition of the honorary system of medical attendance at public hospitals, and this will cause a considerable increase in the cost of hospital administration."

I would like to ask whether the writer has jumped to what he considers an obvious conclusion or whether he can submit proof. I have long doubted the validity of such a statement in view of the delays in treatment associated with the honorary system, delays during which the hospital overhead does not stand still.

Can I be informed whether inquiry has been made into the costs of hospitals which have a paid staff (whether entirely residential or part-residential), it being most definitely understood that "costs" does not mean simple total costs, but costs per service to the patient.

It should be clear, of course, that a 10% rise in the total costs with a 20% rise in service rendered indicates an actual economy.

Yours, etc.,
CRAWFORD MCKELLAR.

143, Macquarie Street,
Sydney,
April 21, 1944.

A NEW NAME FOR AN OLD DRUG.

SIR: Our journal does not profess to provide "Comic Cuts" for the readers, but the following excerpt is too rich a morsel to keep to ourselves:

Dingy Taylor
Something Bronical tubes
Something for egcough

That medical men enjoy a joke was evident from the popularity a few years ago of the joke (on the final page of an enterprising drug firm's pamphlet) labelled "not to be taken seriously". We need it thus nowadays.

I may explain that in the above instruction from the patient "Dingy Taylor" is his synonym for digitalls.

Yours, etc.,
C. MAXWELL.

24, Allenby Avenue,
East Malvern,
Victoria,
April 24, 1944.

Obituary.

JAMES CHARLES MORTON.

THE following appreciation of the late Dr. James Charles Morton has been forwarded by Dr. A. E. Rowden White.

The death of Dr. James C. Morton removes from our midst a type of general practitioner so well known in past generations—the highly respected and much beloved family doctor. This opinion was exemplified and confirmed by the esteem and affection in which he was held by his patients, by the hundreds of letters and messages received by his widow expressing their sympathy for her in the great loss she had sustained.

Dr. James Morton was born in 1870 and was educated at the Christian Brothers College in East Melbourne. He graduated at the University of Melbourne in 1893 and practised for many years in Broadford and later at Seymour. While at Seymour he gave up his practice entirely to do military work as Officer Commanding at both Broadmeadows and Seymour camps during the 1914-1918 war, and gained promotion to Lieutenant-Colonel.

His youngest brother, Major W. A. Morton, of Sunbury, showed a similar martial spirit by spending four years overseas as medical officer with an artillery brigade and was awarded the D.S.O. for his services. Colonel Morton's younger brother is Dr. D. Murray Morton, now retired, who was for many years one of Melbourne's leading surgeons.

For the past twelve years Dr. J. C. Morton practised at Hampton and continued to do so despite failing health until eight weeks before his death. It was a courageous effort on his part and so like the indomitable spirit of the man to do his bit of war service by helping and treating his community which was sadly depleted of its doctors on active service. Our sympathy is extended to his widow and two daughters.

ARTHUR HOPKINS CLARKE.

We regret to announce the death of Dr. Arthur Hopkins Clarke, which occurred on April 25, 1944, at Hobart.

EDWIN CLAUD CHISHOLM.

We regret to announce the death of Dr. Edward Claud Chisholm, which occurred on April 24, 1944, at Blaxland, New South Wales.

NORMAN DAWSON ROYLE.

We regret to announce the death of Dr. Norman Dawson Royle, which occurred on April 29, 1944, at Pymble, New South Wales.

Corrigendum.

DR. BEATRIX DURIE writes drawing attention to an error in her paper "The Rh Factor" appearing in the issue of April 15, 1944. The last sentence of the second column on page 336 was incorrectly typed in the original typescript. It should read: "Moreover, 89 husbands of 'Rh-negative' mothers of infants with erythroblastosis had 'Rh-positive' blood; of 76 infants with erythroblastosis 99% had 'Rh-positive' blood (Table V)."

Medical Prizes.

THE JACKSONIAN PRIZE FOR 1945.

THE acting secretary of the Royal Australasian College of Surgeons writes that he has received a cable from the Royal College of Surgeons of England stating that the subject for the Jacksonian Prize essay for 1945 is "Bone Grafting in Surgery: Its Indications, Methods and Results".

Medical Appointments.

Dr. Alexander Jamieson Melkie has been reappointed an Official Visitor to the Mental Hospital, Parkside, South Australia.

Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

- Emdur, Hyman John, M.B., B.S., 1941 (Univ. Sydney),
1, King Street, Newtown.
Street, Frederick Neil, M.B., B.S., 1939 (Univ. Sydney),
68, King's Road, Vaucluse.
Gilbert, Cecil Henry, M.B., B.S., 1939 (Univ. Sydney),
"Abest", 25, Salisbury Road, Rose Bay.

Diary for the Month.

- MAY 9.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
MAY 9.—Tasmanian Branch, B.M.A.: Branch Meeting.
MAY 12.—Queensland Branch, B.M.A.: Council Meeting.
MAY 12.—Victorian Branch, B.M.A.: Ethics Subcommittee.
MAY 15.—Victorian Branch, B.M.A.: Hospital Subcommittee.
MAY 15.—Victorian Branch, B.M.A.: Finance Subcommittee.
MAY 16.—New South Wales Branch, B.M.A.: Medical Politics Committee.
MAY 16.—Victorian Branch, B.M.A.: Organization Subcommittee.
MAY 17.—Western Australian Branch, B.M.A.: Branch Meeting.
MAY 18.—New South Wales Branch, B.M.A.: Clinical Meeting.
MAY 18.—Victorian Branch, B.M.A.: Executive Meeting.
MAY 23.—New South Wales Branch, B.M.A.: Ethics Committee.
MAY 24.—Victorian Branch, B.M.A.: Council Meeting.
MAY 25.—New South Wales Branch, B.M.A.: Branch Meeting.
MAY 26.—Queensland Branch, B.M.A.: Council Meeting.
JUNE 1.—New South Wales Branch, B.M.A.: Special Groups Committee.
JUNE 2.—Queensland Branch, B.M.A.: Branch Meeting (Joseph Bancroft Memorial Lecture).
JUNE 6.—New South Wales Branch, B.M.A.: Organization and Science Committee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Honorary Secretary, 135, Macquarie Street, Sydney): Australian Natives' Association; Ashfield and District United Friendly Societies' Dispensary; Balmalm United Friendly Societies' Dispensary; Leichhardt and Petersham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phoenix Mutual Provident Society.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federated Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178, North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205, Saint George's Terrace, Perth): Wiluna Hospital; all Contract Practice appointments in Western Australia.

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MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

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